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PULMONARY CONSUMPTION

SUCCESSFULLY TREATED

WITH

NAPHTHA;

WITH CASES FROM OTHER MEDICAL MEN IN SUPPORT
OF THAT TREATMENT;

AND

AN APPENDIX,

SHOWING THE UTILITY OF PUNCTURING TUBERCULOUS
CAVITIES, AS AN ADJUVANT IN THE
CURE OF PHTHISIS.

Second Edition, Revised and Enlarged.

BY

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1845.



EXTRACT FROM REVIEW OF DR. HASTINGS ON
CONSUMPTION, &c.

“ The high importance of the question involved demands at least an unprejudiced trial and an impartial judgment ; and, moreover, they are due to the author, who has frankly and openly stated his views, without any attempt at concealment or mystification.”—*Provincial Medical Journal*, December 23, 1843.

ERRATA.

Page 22, line 28, for "first and the eleventh," read *fifth and twelfth month*. Page 79, line 29, for "norutca," read *nautica*. Page 235, line 21, for "emphysema," read *empyema*.

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P R E F A C E.

THE favourable reception which the first impression of this work has met with from the profession generally, is to me a source of much gratification ; and I hope that the present edition will be found worthy of a continuation and extension of that favour.

My views of the pathology of the lungs are more fully developed in this than in the former edition, but, nevertheless, they are substantially the same as those I have had the honour of laying before the profession in the first instance. It is, indeed, gratifying to me to be able to produce, in support of these views, the valuable testimony of those liberal and enlightened medical men whose contributions will be found in another part of this volume, and which sufficiently prove that the remedial agent, first prescribed and recommended by me in the treatment of consumption, has been found equally beneficial when administered by other physicians in that disease.

I have retained all the cases published in the former edition, with the view of showing their *present condition*, to which I have added notes for that purpose; hence I have not thought it necessary to add many new examples. There are, however, several interesting cases, not published before, inserted in the following pages, and amongst these I would call particular attention to Case VII. (p. 131) and to Case XVI. (p. 181).

In the Appendix, which contains a concise history of the operation of perforating tuberculous cavities in the lungs, as an adjuvant in the cure of phthisis, will be found two important cases by Sir Henry Marsh, Bart., now published for the first time. These contributions to the pathology of the lungs are as valuable as they are interesting, and, coming from such a distinguished source, deserve especial attention.

To Mr. Donovan, of Dublin, I beg to tender my best thanks for several excellent specimens of naphtha, one of which I anticipate will come into general use. I am also much indebted to Mr. John Barry for investigating the nature of this fluid, as well as for the preparation of naphtha prepared from the acetate of lead.

JOHN HASTINGS.

14, *Albemarle Street*,
May 15, 1845.

PULMONARY CONSUMPTION,

ETC. ETC. ETC.

CHAPTER I.

INTRODUCTION.

THE discovery of the stethoscope, together with the application and efficiency of that instrument, as a means of detecting thoracic disease, is, perhaps, the greatest boon that science has yet conferred upon medicine.

Hitherto the rules for discriminating organic diseases in the chest were based upon the rational symptoms of these disorders, and the diagnosis was necessarily, to a great extent, conjectural, and frequently fallacious. But since the immortal discovery of Laennec, laws have been established, founded upon certain physical signs, by means of which the diagnosis can be formed, with a degree of precision and exactness formerly unknown in the history of internal disease. Facts have taken the place of conjecture—truth of fiction—and a branch of patho-

logy, hitherto involved in vagueness and error, has been rescued from obscurity, and elucidated with surprising accuracy and felicity of expression, by the master-mind of that great man.

Science has thus enabled us to diagnose, almost with mathematical certainty, the various phases and conditions of thoracic disease; but beyond this she has not extended her aid. The therapeia of these disorders did not participate in the boon conferred upon their diagnosis; for the tendency of Laennec's researches—brilliant as they were in a pathological point of view—tended materially to increase scepticism as to the curability of certain diseases in the chest, especially of phthisis, and of the efficacy of therapeutic measures of any kind, as curative agents in their treatment.

Nevertheless, pulmonary consumption is not invariably an incurable disease, nor does it always necessarily advance to a fatal termination. Post-mortem examination has abundantly proved that tuberculous excavations have existed in the lungs, and that cicatrization of these cavities, or in other words, a spontaneous cure, has been subsequently established; and, in support of the opinion that phthisis is not necessarily fatal, we may quote the following passage from an essay by Drs. Graves and Stokes, the highest authorities in this country on the pathology of the lungs:—

“It was my intention,” says Dr. Graves, “to have added some observations upon several remarkable cases of phthisis which have occurred in my own practice, and the practice of Dr. Stokes, and in which the patients recovered, either temporarily or permanently, in a manner quite unforeseen and unexpected. In some, recovery took place after the occurrence of abundant tubercular deposition and crepitus; and in others, after the formation of tubercular cavities. When the disease was produced by the operation of accidental causes in constitutions apparently sound, the recovery was not so surprising; but we have witnessed recovery in many of a phthisical constitution, and several members of whose families had previously fallen victims to consumption. Facts such as these ought to prevent the practitioner from placing too great reliance upon stethoscopic examinations, as a positive means of *prognosis*; for it may be looked upon as established, that phthisis, like most other diseases, *does not always necessarily progress to a fatal termination.*” *

If the experience of these distinguished pathologists has enabled them to form so decided an opinion upon this important point, surely it was not altogether vanity to suppose that a remedial agent existed, which might materially facilitate and promote the efforts of nature, in

* See Dublin Journal of Medical Science, for Jan. 1, 1842.

effecting a cure during the early stages of phthisis. Numerous cases might be cited in proof—if further proof were necessary—of the correctness of the views of Drs. Stokes and Graves. I shall, however, content myself for the present with translating from the pages of the *Revue Medicale* of November, 1841, the following interesting case of spontaneous cure of consumption, related by M. Payan, Physician to the Hotel-Dieu of Aix:—

“Josephine M——, aged twenty-six, was admitted into the Hotel-Dieu of Aix, in January, 1837. Three years previously, this patient had been an inmate of the same hospital, labouring under all the symptoms of confirmed pulmonary consumption; she had a deep, hollow cough, abundant expectoration of pus, with broken down tubercular matter, hectic fever, &c. After remaining three months in hospital, she was sent home to die; but the subsequent history of her case showed a far different termination. The cough, expectoration, and fever continued for a considerable time, but they gradually diminished; the patient now began to recover strength, the pulmonary symptoms disappeared altogether, and the girl felt herself able to return to her work, as she experienced nothing more than a slight difficulty of breathing when she fatigued herself too much.

“When re-admitted into the hospital, in 1837,

the patient presented no trace whatever of her old pulmonary complaint; she had a slight gastric affection, but was soon attacked by the influenza, which prevailed at that time. Towards the evening of the day on which she was attacked, the respiration became difficult; the dyspnœa rapidly augmented during the night, in spite of our utmost efforts; and the poor girl died before morning, in a complete state of asphyxia. The rapid termination of the case induced me to have the body examined with more than ordinary care. This was done on the following day.

“The left side of the chest was evidently smaller than the right. On opening the head we found considerable congestion of the veins, but nothing more. The thoracic cavity was next examined. The first thing that struck me was the great disparity of size between the two lungs; the right lung was large, and completely filled the right side of the thorax, while the left lung was reduced to a very small volume, and concealed in its cavity by a quantity of laminated tissue; on further examination, it was seen that the organ was completely atrophied and impermeable to air; it was firm to the touch, and more consistent than the renal capsules. On cutting into the substance of the lungs, we found several cavities of various sizes, which communicated with each other; they were, however, completely

cicatrized and free from matter. The right lung was gorged with blood throughout its whole tissue, but imperfectly crepitant.

“The post-mortem appearances, then, perfectly explained the rapid death of our patient from a slight attack of influenza. The girl had been consumptive, but one lung only was attacked; the tubercles were numerous, and occupied a great portion of the parenchyma of the lung; they had softened, and were completely removed by expectoration.

“This was shown by the abundant expectoration of purulent matter during life, and the numerous cavities found in the lung after death. It is not difficult to explain the cure of phthisis in this case, if we remember that one lung only was attacked; the right lung, which fortunately remained free from disease, was sufficient to answer the demands of respiration, while nature was eliminating the morbid deposit from the left half of the chest.”

Impressed with the truth of Drs. Stokes and Graves' statement, and aware of the comparative frequency of such cases as the foregoing, I have for several years past directed my attention to the pathology of phthisis, with the view of ascertaining by experimental research the relative value of the ordinary remedies prescribed for this complaint, and whether there was, in reality, no remedy to be found capable of controlling its

course. The result of that enquiry has been the discovery and development of the method of treatment detailed at length in another part of this volume. My original opinion of that treatment is still unaltered; and if time has chastened or subdued my enthusiasm on the subject, experience has, on the other hand, strengthened my opinion of the great and curative powers of naphtha in tuberculous disease.

In the following pages I have stated my views openly and without reserve. I have concealed nothing; and I would only say to my professional brethren—give my method of treating pulmonary consumption a fair trial and an impartial judgment, and I feel confident of the result.

CHAPTER II.

CAUSES.

THAT phthisis is the result of a vicious state of the nutritive process, disposing the organism to generate tubercle in preference to any other morbid product, is a proposition of so vague a character, that it throws little or no light on the pathology of the question involved; and when we reflect on the varieties of disease attributed to impaired nutrition and digestion, it is difficult to comprehend how these several affections can be generated by a common cause; for, notwithstanding the brilliant researches of Liebig and other philosophers, who have laboured in the field of animal chemistry, the first step from health to disease is still sufficiently undefined to elude observation. It is said that the cause is modified by the nature of the tissue or organ through which it operates, and is further influenced by climate and season; but instead of obviating the difficulty, this explanation leaves us uninformed how the cause is modified so as to create gout or pulmonary consumption in one case, and a skin affection in another.

A greater dissimilarity is met with in diseases of the skin, than in those affecting any other structure or organ of the body. The majority of these affections are of an inflammatory nature; nevertheless, they differ sufficiently to admit of a distinct and well-marked diagnosis. This sheds some light on the variety of remote causes whence they result; or if in many instances they arise from the same cause, it is evident it must undergo a rapid modification of its characters, either by the vital actions within the organs of the body, or by the operations of agents from without, to realise the great variety of diseases which are so common to the dermoid tissue.

The more the subject of remote causes is examined, the more clearly it will be seen, that, at present, no precise rules can be laid down as to the part they play in the generation of disease. Where there is a deficiency of the *vis vitæ* in any particular organ or tissue, there a greater liability to disease may be anticipated; but this, I repeat, offers no explanation for dissimilar diseases growing out of similar causes.

Among the remote causes of phthisis, the hereditary is almost universally allowed to be most frequent; but the exceptions to this rule are sufficiently numerous to show that there is still much to be learned before this subject can be cleared up. Children whose parents have both perished from this disease, are supposed to be more liable

to it than those deprived of but one; I cannot say that my experience leads me to this opinion. In several instances, in which both parents died of consumption, I have seen, out of a large family, but one or two children cut off, the others remaining healthy; sometimes, on the other hand, the whole family has been destroyed. Similar calamities have appeared to me as frequently where one parent only had been afflicted with the disease. At other times the families of consumptive parents enjoy excellent health; whilst, on the contrary, the children are sacrificed to the disease—the parents, at the same time, being apparently in health. The hereditary origin of such cases may be questioned, although I believe they have no other source. If they arise from any other cause, it might be reasonably expected that the prophylactic measures, so generally resorted to at the first indication of the disease, would be followed with more satisfactory results. Indeed, this taint, like that of gout, may pass over a generation, which has appeared to me to be the case in one or two instances; however, it must be acknowledged, that it is no easy task to ascertain at all times the diseases of which the parents of consumptive patients have died, much less that which terminated the existence of a preceding generation.

There is another peculiarity in the causation of disease, by no means of rare occurrence, con-

nected with consumptive, as well as non-consumptive parents; it consists in the male offspring falling victims to the affection in one family, and the females in another.

So powerful is the influence of the hereditary taint, that tubercles have been met with in the bodies of newly-born children, and have even been found in the lungs of foetuses.*

The consumptive taint is often so thoroughly disseminated throughout the body, that it is easily recognised by the modification it induces in the physical conformation of its victims. The skin assumes a semi-transparent character, is thin and of a fine texture—the cheeks present a rosy, healthy appearance. The hair is generally fine and delicate, of a light brown colour, sometimes black, and more readily falls than it does in persons possessing healthy constitutions. The eyes are remarkable for their fulness and brilliancy, and are usually of a light blue colour, sometimes, however, they are dark brown or black. The nails of the fingers and toes are thin, and frequently incurvated. The muscular system is often sparingly developed, the limbs seeming to possess in length what they want in breadth and plumpness. The neck is long, and the chest narrow and contracted; the circulating system makes up in excitement what it wants in vigour.

* T. Davis, M.D., *Lectures on the Diseases of the Lungs and Heart*. London, 1835.

The nervous organization is often highly developed, as it is not uncommon to meet with consumptive persons whose moral and intellectual powers are of the highest order.

There is a mental character, says Dr. Macartney, belonging to the scrofulous and consumptive habit which more strikingly indicates the peculiar state of the constitution than all other signs. Persons of this habit, in general, exhibit no mental energy, but a gentleness and amiability of disposition, a refinement and judgment in matters of taste, and a purity of moral feeling, which is sometimes so remarkable as to place them, in these points, far beyond the scale, and even beyond the conception of the mass of mankind.*

All circumstances that have a depressing and debilitating effect on the constitution, or tend in any way to derange the functions of organic life, are predisposing causes to consumption as well as many other diseases. Under this comprehensive head are included vicissitudes of temperature, which have a great influence in the production of phthisis, whilst climate appears to have much less to do with it; for the disease is comparatively rare in the torrid and frigid zones, where the hot and cold seasons are subject to fewer atmospheric changes than in the temperate zone; in the latter, winter and summer are not unfrequently met with in the course of twelve hours; and it is

* Treatise on Inflammation. London, 1838.

not uncommon to have weather in June as inclement as that in December. In Russia, and the more northern regions, phthisis is a comparatively rare disease ; neither is it of so frequent occurrence in the East or West Indies, or in any of the countries situated in warm southern latitudes, as it is in this and several other countries of Europe.*

Depressing passions and violent emotions of the mind have long been considered predisposing causes of phthisis ; they are supposed to favour its production by deranging and exhausting the nervous system.

Deficiency of nourishment, by depriving the body of its necessary elements for healthy existence, weakens the vital forces, and thus the system becomes incapable of resisting the development of disease ; hence phthisis and other disorders.

Deficiency of clothing is also to be ranked among the remote causes of this affection ; if the body be insufficiently clad to protect it from the inclemency of the weather, its surface becomes chilled, and the blood which ought to circulate in the skin and subjacent tissues, is detained in the internal organs, and gives rise to congestion, inflammation, consumption, &c. The same evil results are brought on by damp clothes and damp

* H. H. Southey's Observations on Pulmonary Consumption. London, 1814, p. 29.

beds. The disease is often consequent upon debauchery, especially drunkenness; I have repeatedly witnessed it follow habitual intoxication, in persons who had previously enjoyed good health, and whose parents and families were free from consumptive taint. Licensed victuallers, who, from the nature of their business, live freely, are consequently often carried off by phthisis.

Modern authors have considered a certain form of dyspepsia as a cause of the disease; but as phthisis is not always co-existent with dyspepsia, the question arises if it be anything more than a complication similar to those of the stomach and bowels, with which it is not unfrequently associated. It appears, from numerous facts already published, that certain trades have some influence in producing the disease, others in suppressing the tendency to its development. Among the former may be placed the Sheffield dry grinder, and all persons engaged in occupations where much dry, hard, and irritating particles are received into the lungs. Clerks, tailors, shoemakers, and others, whose daily employments oblige them to assume a bent position, are supposed to be liable to this affection; but further and more precise observations are necessary before this can positively be affirmed. The avocations of sailors, watermen, gardeners, butchers, tallow-chandlers, and tanners, have a decided tendency to check the encroachments of the

disease. The mariner, according to Dr. Balfour, although it is denied by others, appears to be remarkably exempt from its visitations.

Sex certainly manifests an influence on the production of consumption; it is more frequently met with in females than in males; this opinion is supported by statistical facts collected by Jervis, Briquet,* and Boyd; but why this is so, we are at present unable to explain. Some writers have attributed it to tight lacing, and other defects in the hygiene of females, such as the exposure of the chest, and want of sufficient clothing, exercise, &c. Dr. Shearman† thinks it is sometimes owing to amenorrhœa, but this condition is more commonly looked upon as a mere consequence of the disease.

Phthisis often appears as a sequence to an enfeebled condition of the system, resulting from protracted and frequently recurring diseases, and from the severe treatment which is sometimes resorted to in acute affections. Fevers have been long enumerated among the predisposing causes of phthisis. I have repeatedly seen phthisis follow measles,‡ and severe hooping-cough of long continuance, in children. Profuse hæmorrhages

* *Recherches Statistiques sur l'Histoire de la Phthisie.* (Revue Medicale, Fevrier, 1842.)

† Shearman, M.D., on the Connection between Amenorrhœa and Phthisis, Ed. M. S. J., 1810.

‡ Green, P. Hennis, M.D., a Tabular View of the Seat of Tubercle, &c. Med. Chir. Trans., 1844.

from labour and miscarriages, appear to be intimately connected with the development of consumption. Pneumonia and pulmonary catarrh were formerly believed to be the ordinary exciting causes of the disease. Although modern authorities are opposed to this view, I partly coincide with it; for I am satisfied phthisis sometimes arises from the latter affection. I have, at present, two elderly females under my care, who have had cough and considerable expectoration for upwards of twenty years—severe during the winter, but never entirely disappearing in the summer. There was little emaciation, and, indeed, no unequivocal sign of phthisis appeared until the last three months, when all the ordinary symptoms of the disease rapidly manifested themselves, and on examining the chests of these patients, tuberculous cavities were at once diagnosed. The age of one of these patients was sixty-three, and the other fifty-six. If, in the cases referred to, phthisis was not the result of the chronic pulmonary catarrh, I am at a loss to conceive what it could be owing to. It must not be concluded, because phthisis does not always follow pulmonary catarrh, that the latter is never a cause of the affection; as well might the contagious nature of measles be denied, because it does not attack all children.

The contagious or non-contagious nature of

phthisis is a question which has undergone, from time to time, much discussion, and one which still remains unsettled. It is, in itself, of such high importance, that it is entitled to command our most serious consideration. If it can be shown that it is communicable in this way, to healthy individuals, under certain circumstances, only when it has reached a particular stage, it is clear its propagation, from this cause, might, in a great measure, be prevented.

Among the medical authorities of antiquity Aristotle* appears to have been the first who entertained the idea that phthisis was contagious. Galen† considered it dangerous to pass the whole day with a consumptive patient, from dread of contagion. The sputa were thought to have been contagious by Lommius‡ Ballonius§ and Riverius|| have recorded cases supposed to have arisen from nursing consumptive patients. Morton¶ says it is most fatal when derived from contagion. Hoffmann** regards consumption as in some degree contagious, or, at least, thinks that a predisposition to the disease may be called into action by attending a consumptive patient. Mor-

* Aristotle, B. 385, D. 322, B.C. Probl. I. 7. VIII., 8.

† Galen IV., 87.

‡ Lommii Observationes Medicinales, 1560.

|| Ballonius, D. 1616.

§ L. Riverii Opera Medica fol. Geneva, 1728.

¶ Morton's Phthisiologia, London, 1619.

** F. Hoffmann Opera Physico-medica. Geneva, 1740.

gagni* and Valsalva believed the disease might be propagated by dissecting consumptive subjects. Lieutaud,† Van Swieten,‡ and Sonville,§ also believed it to be contagious. Dr. Reid observes,|| in extreme cases the disease may be so. Burserii,¶ Raulin,** Emale Fritze Wichmann,†† and Selle,‡‡ entertain a similar view. Drs. Withering and Darwin§§ think it infectious, as likewise do Dr. Rush||| and Baume;¶¶ Dr. Wilson*** also thinks it occasionally so.

Portal,††† although he denies the contagious

* J. B. Morgagni de Sedibus et Causis Morborum, fol. Ven. 1761.

† J. Lieutaud Synopsis Universæ Praxos Medicæ. Amsterdam, 1765.

‡ G. L. B. Van Swieten, Commentaria in Hermannii Boerhave Aphorismos. Leyden, 1741.

|| Journal de Medicine, 1777.

§ J. Reid, M.D., Essay on the Nature and Cure of the Phthisis Pulmonalis. London, 1782.

¶ J. B. Burserii, Institutiones Medicinæ Practicæ. Venice, 1782.

** Raulin, Traite de la Phthisie Pulmonaire Paris, 1784.

†† Emale, Journal de Medicine, LXIII. Paris, 1785.

‡‡ C. J. Selle, Medicina Clinica. Berlin, 1788.

||| E. Darwin, M.D., Zoonomia. London, 1794-6.

§§ B. Rush, M.D., Medical Inquiries and Observations. Philadelphia, 1789.

¶¶ Baume, Journal de Medicine, LXXIV. 1792.

*** A. P. Wilson, M.D., Treatise on Febrile Diseases. London, 1803.

††† A. Portal, Observations sur la Nature et le Traitement de la Phthisie Pulmonaire. Paris, 1809.

nature of the disease, believes it may be derived from nurses. Dr. Southey* says it is generally believed to be contagious on the northern shores of the Mediterranean. Dr. Young,† although not a believer in the contagious nature of consumption, states that Dr. Rush “has given an account of a consumption manifestly contagious, which spread from the family of the proprietors of an estate among the negroes,” and, he adds, “I have myself known an instance of a carpenter who died of a laryngeal consumption, and whose wife died soon after, as I was informed, of a disease precisely similar.” Many modern authors might be quoted in support of this doctrine, but, as they have written in our own time, it is hardly necessary to refer to them. The foregoing opinions are the result of observations made by some of the most learned and enlightened men—opinions not hurriedly arrived at, but the result of long experience and patient research, and consequently are worthy of consideration.

I am quite aware that nothing short of actual demonstration will satisfy some medical disputants, which is the more surprising, as it is a doctrine almost unknown in medicine, and certainly one that cannot be employed in support

* Op. citat.

† S. Young, M.D., Practical and Historical Treatise on Consumptive Diseases. London, 1815.

of this question. However, from facts which have repeatedly fallen under my notice, I am satisfied the disease is sometimes, and under favourable circumstances, contagious. I have known the wife too often sacrificed through her attentions to the husband, and the husband to the wife—witnessed friends, attendants, and nurses, perish through onerous and long continued duties on consumptive patients, particularly before they have reached that age when there is little risk of contagion, to remain longer sceptical on this subject. The disease most frequently manifests itself, as Hippocrates observed, from eighteen to thirty-six; between these ages I should be apprehensive for the safety of any one who was in close and constant attendance upon a consumptive patient, although I admit that many individuals escape altogether from the disease, however great the exciting cause may be. Granting that it is contagious, its molecular essence may be less subtle than that which emanates from small-pox, scarlet fever, or measles, but whether it arises from frequent contact, or exhalations from the skin, or lungs, or both, and what is the nature of the poison, are very important matters for inquiry, but which our present means of investigation hold forth very little prospect of unravelling.

Phthisis appears to occupy a longer time for incubation than any other disease, not excepting

hydrophobia. If six weeks are ordinarily required to bring the fatal virus of the latter into a more active state, why may not the former consume six or twelve months for the same purpose, for no more is known about the essential character of one than the other? Besides, phthisis is sometimes arrested in its progress, and remains stationary for an indefinite period, which necessarily produces irregularity in its stages of development. Further, it must be remembered, that the proofs of contagion cannot, positively and undeniably, be demonstrated, even in small-pox or scarlet fever, yet no rational being doubts that this is the chief source of these affections. The nature of contagious matter is involved in obscurity, and no more is known of its phenomena, than the coarser symptoms which mark the disease springing out of it. The subject of contagion intimately concerns nurses and attendants on patients in private practice, still more deeply those individuals who are entrusted with the management of institutions not only where phthisical patients, in the last stage of the disease, are permitted to mix, indiscriminately, with others untainted, but particularly persons connected with hospitals for the more special treatment of the disease under consideration. Hence, I would earnestly recommend, in the erection of institutions which have for their object the *cure* of phthisis, that the fundamental principle be en-

tire separation of the patients. Unless this is effected it will be a mere asylum—a resting-place for those unfortunate beings between their dwellings and the grave. I have, elsewhere, shown that that this affection is far more unmanageable when treated in hospitals than in private houses, and it is probable that in institutions devoted to consumptive patients the results will be still more unfavourable. Suppose a number of persons labouring under pulmonary consumption living and sleeping in a close apartment, what must be the consequences of the noxious perspiration and pestilential exhalations proceeding from the skin and lungs? It must not only vitiate, but perhaps impregnate, the atmosphere with germs of the disease, which the patients may imbibe from each other at every inspiration, which would more than counterbalance any good to be derived from the treatment. Future observers may possibly be able to show whether the disease be communicable by contagion, at any particular stage, or indifferently through all of them.

The duration of phthisis occupies a very wide range. The acute form runs its course in a few weeks. The chronic and more common form lasts for years; but the majority of cases terminate between the first and the eleventh. Louis mentions several cases which dragged on exist-

ence for twenty years, and Dr. Young extends the time even to forty years. Thus, it is subject to great variety, which, I believe, depends chiefly on the extent and repetition of the tuberculous matter deposited in the lungs.

CHAPTER III.

SYMPTOMS.

DURING the early deposition of tubercles in the lungs, when they are scattered and few in number, it is very difficult to detect them, although they offer a sufficient obstacle to inspiration and expiration, so as to produce slight cough, which often precedes all other symptoms. This condition continues in some persons for a considerable but indefinite period, especially where the disposition towards the development of the disease is feeble, and all exciting causes avoided. At that epoch, prolonged expiration is a symptom often present; but, to appreciate it satisfactorily, great tact and experience are required, which tend greatly to diminish its value. When tubercles are deposited in the more central parts of the lungs—the circumference remaining uncontaminated—they are diagnosed with great difficulty, and frequently altogether escape notice. Mr. Henderson, during my sojourn in Paris in 1840 and 1841, was accustomed to percuss either the anterior or posterior walls of the chest, and then

apply his ear to the opposite side with the expectation that the sound would be so modified by the dense structure of the tubercles, as to enable him to decide on their existence. This method was adopted as a means of detecting deep-seated tubercles.

This ingenious theory was abandoned by Mr. Henderson, in consequence of its failure in producing those practical results which he expected. Dr. Williams,* however, who has since called attention to this method, may be more successful.

Many attempts have been made to point out the disease at an earlier period than could be accomplished by auscultation or percussion. The measurement of the thoracic walls, as recommended some years ago by M. Woillez,† was expected to work out this desirable object, but from its having fallen into disuse, its value was evidently too highly estimated. Recently Mr. Sibson‡ has published an essay on the relative situation of the internal organs in health and disease, which will no doubt be found useful in diagnosing some

* Medical Gazette, page 404, December 16, 1842.

† Recherches Pratique sur l'Inspection et la Mensuration de la Poitrine par M. Woillez. Paris, 1838.

‡ On the Changes induced in the Situation and Structure of the Internal Organs under varying Circumstances of Health and Disease, and on the Nature and External Indications of these Changes, by Francis Sibson. Transactions of the Provincial Medical and Surgical Association, vol. xii. pp. 307—574. London, 1844.

of the obscure diseases in the cavities of the abdomen and chest ; but I fear it will afford little or no aid in detecting phthisis at an earlier period than can be done at present. Much has been said on flattening of the chest at the outbreak of the disease ; but when it is known that in healthy subjects there is no precise uniformity between the sides of the body, this sign, unsupported by others, must be looked upon as one of very trifling value.

Nay, so much uncertainty prevails regarding the early symptoms of the disease, that it is affirmed by Dr. Chambers* that the lung augments in size at this period, whilst, on the contrary, Mr. Sibson states the lung undergoes diminution.

Although tubercles occasionally attack the middle and inferior lobes of the lungs first, they generally show themselves earliest in the superior, consequently, at the commencement of the affection, it is to the upper part of the chest especial attention must be directed. The left lung is supposed by many writers to be first affected by the disease ; this is contrary to my experience, but it is not always an easy question to decide. Cases occasionally occur where the disease is so equally distributed and advanced in both lungs, that it is difficult to say in which it appeared first.

At the outset of the disease, the patient's at-

* The Physical Diagnosis of Diseases of the Lungs, by W. H. Walshe, M.D. p. 167. London, 1843.

tention is first attracted by a dry cough, which is usually attributed to cold. This often continues, although all the ordinary remedies may have been employed for its removal, and very gradually expectoration, of a semi-transparent white mucus, comes on, which is, however, sometimes blackish, owing to the inhalation of carbonaceous matter derived from the atmosphere. Sometimes cough and expectoration are coincident at the commencement of the disease. More or less difficulty of breathing is felt after any exertion, particularly on ascending a staircase or rising ground, and the acts of respiration are generally quickened. Wandering pains are often felt in different parts of the chest, but are more commonly experienced over the region of the tuberculous deposit. The circulation is accelerated, the appetite capricious, the bowels irregular; the face is often flushed after meals; the palms of the hands and soles of the feet become hot in the evening, sleep is repeatedly disturbed by cough, and towards morning perspiration commences, first about the knees and thighs, then extends itself to the chest, and eventually over the whole body. Debility and wasting are more or less evident.

Many cases exhibit no signs of the disease until an attack of hæmoptysis is experienced, from which the patient often recovers. Another attack comes on, and even a third and fourth, until at

length a cough is permanently established, and then the usual train of symptoms follow. Sometimes so small a portion of one lung is only involved in the mischief, that, beyond slight cough and expectoration, no disturbance is felt in the system for a considerable time. At other times the deposition of tuberculous matter is so extensive that life is destroyed before the disease has advanced beyond the first stage. This is the acute form of phthisis. At this period the disease is generally recognised by its physical signs. There is diminution of expansion in the superior part of the chest, with flattening over the diseased surface, where percussion elicits a dull sound. The respiratory murmur is totally absent, deficient or masked by a coarse bronchial rale. Inspiration is performed in jerks, and expiration prolonged and noisy. The voice is preternaturally resonant, and the pulsation of the heart is heard with unusual distinctness. At this stage of the disease the opposite side is often healthy, and performs additional duties, in proportion to the amount of air-cells obliterated in the other lung. In some cases this is not observed, the healthy lung not apparently performing any additional duty. On contrasting the sides, we find the healthy one fully expanded, percussion yields a clear sound, the respiratory murmur is healthy, and resembles the rustling noise of a silk dress. The voice

exhibits no undue resonance, and the pulsation of the heart, if heard at all, is not unnaturally loud.

There is a class of cases diagnosed with much difficulty, where the physical signs and general symptoms are obscure and unsatisfactory. Patients who come under this category complain of slight hacking cough, often of long standing, sometimes without expectoration, with occasional acute pains in various parts of the chest. The circulation is slightly hurried, with a feeble pulse ; the appetite capricious, bowels disposed to be confined, slight difficulty of breathing, and night perspirations occur now and then. Expansion of the upper part of the chest is confined, where a general dulness is detected on percussion ; the respirations are often as frequent as twenty-four to twenty-eight per minute, whilst the breath-sound undergoes no perceptible alteration, and in females the catamenia are deficient, or entirely wanting. Such a catalogue of signs are often met with in chlorotic patients who are not phthisical, and it is important we should possess some accurate means for distinguishing at once these morbid conditions.

This desirable object has been to a certain extent effected by means of an instrument, introduced to the notice of the profession by Mr. Hutchinson, called a breath-meter. Many years ago Mr. Abernethy, with the intention of throwing additional light on pulmonary diseases, endeavoured

to ascertain the capacity of the lungs for air by means of a pneumatic trough containing a bell glass; into the bottom of this vessel one extremity of a tube was placed, whilst the other was grasped by the patient's lips, when a forcible expiration was made, and the amount of water displaced showed the quantity of air discharged from the lungs. No improvement was made on this instrument, which, indeed, had been forgotten many years, until the subject attracted the attention of Mr. Hutchinson, who, after labouring at it for a considerable time, completed an admirable instrument for the purpose; he has, besides, discovered two remarkable laws, which greatly enhance its value:—

First—That all persons of equal stature, between five and six feet, whose lungs are healthy, expire the same bulk of air.

Second—That for every inch in height the capacity augments eight inches.

There is an exception in the first law for fat persons whose expiratory power is below the ordinary standard. From this explanation it will appear that any marked deviation in the quantity of air expired, indicates disease, the nature of which must be ascertained by other means. Not only is this instrument valuable in obscure cases of early phthisis, for assisting the diagnosis, but it is useful in marking the progress of the disease in all its stages, by showing the amount of air escaping

from the lungs at different periods. In chlorotic patients, no deficiency of air is found on a full expiration ; but if the symptoms are due to phthisis, then the quantity will be found below the healthy standard. This instrument will obviously be found invaluable for the medical departments of the army, navy, police, and insurance companies, and Mr. Hutchinson is entitled to the thanks of the public and the profession for the discovery.

In more advanced cases, where the disease has attacked both lungs, expansion becomes more confined on both sides, and dulness on percussion is detected in the upper regions of the chest. The respiratory murmur in that portion of the lung first affected becomes tubular, where a dry, crackling rale may sometimes be detected, and now and then a click is heard—the first intimation of softening. The voice is perceived at the distal end of the stethoscope over this surface, constituting the sound called bronchophony. The sounds of the heart are transmitted through the dull region with more distinctness, in consequence of the condensation which has taken place in the pulmonary tissue, as well as through the tubercular mass, which makes the lung a better conductor of sound. The cough almost imperceptibly grows more harassing, particularly on rising in the morning, and frequently after meals. The expectoration increases, assumes a yellowish,

purulent character blended with bronchial secretion, and is occasionally streaked with blood, and the respiration is more hurried. At this period pain is very common in various parts of the chest, but is still most frequent where the disease commenced. Breathing becomes more difficult, respirations more frequent, and nocturnal perspiration more severe. Debility daily augments, and the muscles become softer and more wasted. In females the catamenia disappear at this period, if they have not done so at an earlier stage, which is not unusual, their absence being frequently observed among the earliest signs of the disease. Depressions in the walls of the chest are now evident, varying in extent and situation according to the part and portion of the lungs which have become collapsed, independently of any wasting of the muscles, cellular tissue, or skin; in consequence of which the movements of the chest are diminished and its measurement altered.

Although much may be learned from the character of the expectoration, it is not alone decisive of the nature of the disease. The fatty, friable secretion of the tonsils, blended with bronchial mucus, have been repeatedly mistaken for tuberculous sputa. I have known the greatest alarm created in whole families from a few specks and streaks of blood expectorated with a little mucus, from a belief that they arose from tubercles in the lungs, whereas, their source had been an abraded

tonsil, or the mucous membrane of the nose and fauces. There is another striking symptom which shows itself about this time, and which has not been adverted to; I allude to the disposition the patient has to find excuses for all the increasing symptoms of the disease—such as the weather makes the cough, expectoration, and difficulty of breathing worse, and the perspirations are owing to too much clothing, &c.

As the disease progresses the indurated tubercles undergo a process of softening; the lung, in the vicinity of the diseased product, is gradually destroyed, until a bronchial tube of considerable size is perforated, through which the softened mass is discharged. From the hepatised state of the pulmonary tissue which surrounds the cavities, a dull sound results from percussion, unless the cavern is empty, very large, and its walls thin at the periphery of the lung; in which event a clear sound, or the cracked metal one, is elicited. On applying the stethoscope over this space, a gurgling rale, if the cavity contains fluid, or, if tolerably empty, a cavernous or blowing murmur, is heard, and the voice traverses the whole length of the instrument, and speaks into the ear. At this stage of phthisis the gurgling sound is sometimes heard at a distance of five or six feet from the patient. The cough is less trying, the expectoration more copious, of an ash colour, sometimes containing small particles not unlike boiled rice,

which, towards the close of the disease, assumes a smooth, creamy consistence, and now and then a disagreeable smell arises from the expectoration, which is owing to mortification of a portion of the pulmonary tissue. At this period of the disorder, the pain felt over the seat of the cavity at the early stage of the disease disappears, and although the oppression which accompanies breathing is sometimes diminished, the number of respirations is increased. Debility and emaciation now make rapid strides,—indeed, there is scarcely any other disease in which wasting of the external parts is observed to so great an extent,—*

* In pulmonary consumption, the process of waste, so characteristic of that disease, falls chiefly upon the organs of locomotion, and *external* parts, whereas the viscera of the chest and abdomen by no means suffer to the extent we might naturally expect. It is even stated that none of the vital organs suffer any abridgment of their usual supplies; and, amid the apparently general denudation and dissolution, the great organs of life receive and assimilate even a larger than normal portion of the circulating nutriment. Dr. Clendinning states, in an interesting paper on the “NUTRITION OF THE VISCERA IN CHRONIC DISEASE,” “that the viscera in phthisical subjects do not participate in the apparently general waste, but thrive as usual nearly, notwithstanding fever, colliquative discharges, and protracted suffering; and in most of the organs” (of the bodies which he examined,) “the average weight was *higher* in the phthisical than in the *other* subjects,” or those who died of various diseases, not consumption or affections of the heart. M. Louis, however, states that the liver and stomach are the organs most frequently enlarged in phthisis, and that, in the majority of cases, the heart is less than natural.

and anasarcaous swellings of the feet and legs announce a speedy termination to the affection. It is not an uncommon circumstance for the expectoration to subside a few days before the patient's death, and during the same time delirium is sometimes present; but I believe the latter is occasionally owing to the opiates prescribed to allay the diarrhoea and procure rest. Hæmoptysis to any great extent is a rare attendant at this stage of phthisis, and death from that cause a still more uncommon circumstance; but that it does occur sometimes, a case to be related presently will show. Its rarity has been accounted for by the gradual destruction which the pulmonary blood-vessels undergo through the mechanical pressure they are subjected to by the tuberculous deposit in their neighbourhood, which diminishes the vascularity of the part, and lessens the risk of hæmorrhage. But that it is owing to some other cause than this cannot be doubted; for Shroeder van der Kolk and M. Guillot have shown that, in proportion as branches of the pulmonary artery become obliterated, a new arterial vascular system is developed around the tuberculous deposition, which offers an equally fertile source for hæmorrhagic discharges. This may be denied on the ground that the new vessels are of inferior magnitude to those destroyed, and hence unlikely to admit the discharge of so large a quantity of blood as sometimes happens. I believe, however,

hæmoptysis in all stages of the disease originates in the capillaries; for in those cases which I have had an opportunity of examining after death, I have failed to discover, after the most patient search, the actual source whence the blood made its escape. I am aware Dr. Hodgkin made a similar observation some years ago; and what is understood by the rupture of a blood-vessel is probably nothing more than a transudation, through imperceptible pores, of the coats of the smallest branches of the vascular system.

One of the causes which probably operates in checking and preventing hæmorrhage in the latter stages of phthisis, is the great vascularity of the walls which surround caverns; and this condition of the part gives rise to a feebly organised lymph, or pseudo-membrane, as it is called, which affords protection to the vessels beneath, both from the action of the atmosphere and the irritation produced by coughing.

CASE I.

William French, married, ætat. 26, by trade a plumber, residing at 3, Charles-street, Westminster, placed himself under my care July 20th, 1844. He was born of healthy parents, had always enjoyed good health until the autumn of last year, when he was attacked by dry cough and difficulty of breathing, which were shortly

followed by expectoration, night perspirations, wasting, and great debility. At this date his respirations were 32, and his pulse 128 per minute. His bowels were regular, and appetite good. He suffered from pain in the lumbar region, and complained of great heat in the palms of the hands and soles of the feet. Expansion was deficient in the upper regions of the chest, especially on the left side; both sides yielded a dull sound on percussion; cavernous rales and pectoriloquy were distinctly heard below the left clavicle, and imperfectly so below the right. He was subjected to the naphtha treatment and sedatives for two months, without benefit, when he withdrew from my care. On October 9th, I was informed he had died suddenly the preceding night. Having retired to bed much as usual, he was disturbed, after about two hours' sleep, with cough and spitting blood; this continued until he had discharged between two and three pints, when he rapidly sank. Twelve hours after death I examined the body in company with Dr. Burslem. It was much less emaciated than subjects usually are who die of phthisis. The upper lobe of the left lung was hollowed out into one large irregular cavity, partially filled with secretion; the middle and lower portion contained several smaller cavities, between which were portions of healthy pulmonary tissue, without any appearance of blood to be found.

The right lung in its upper lobe contained one irregular cavity; its walls were lined with a dark bloody-looking secretion; beyond this the lung was tolerably free from tuberculous disease, but, with the exception of here and there a healthy spot, it was filled with extravasated blood, and although I carefully examined the parts, I failed to detect the rupture of a single vessel.

CHAPTER IV.

COMPLICATIONS OF PHTHISIS.

PHTHISIS is essentially a disease of the lungs, arising from the presence of tubercles within those organs. Tubercular deposits in other situations, as well as diseases which sometimes accompany phthisis, although they may originate in it, are to be regarded as complications. Taking this view of the subject, it is obvious that that affection which has been denominated tubercular cachexy, must be placed in the same category, instead of being considered as a phasis of consumption, or its constant and immediate precursor. It is true the symptoms of the disease may sometimes escape observation from the want of close attention, and that, at other times, they may pass unnoticed from an unusual mildness of character. Nevertheless, I have repeatedly witnessed cases which, after the most searching investigation, had neither been ushered in, or accompanied by, any symptoms characteristic of phthisis. However, it is not unreasonable to expect that the blood, containing within itself, as it does, all the ele-

ments of the body, and furnishing all the materials for secretion, when charged with tubercles, may so deteriorate and derange all the functions of the system, so as to induce tubercular cachexy, unless, indeed, it undergoes—which it may do in some instances—a process of purification by the deposition of the tubercles it contained in the tissue of the lungs.

Tubercular cachexy may be recognised by the following symptoms:—The countenance has a sallow, faded appearance; the eyes a rather dull and glassy character; the tongue is usually more or less furred at the base; the appetite is variable and capricious; the bowels alternate between constipation and diarrhœa. Flatulence and pain exist at the pit of the stomach after meals, which in females is often accompanied by palpitation and fainting. The catamenia are irregular in their periodicity, quantity, and quality; the action of the heart is feeble, and the pulse above the natural standard; headache is present, and the hands and feet are often cold, indicating a want of balance in the circulation. The nervous sensibility is exalted; the temper is unusually variable and irritable; the muscles of voluntary motion are wasted and softer than usual; there is great disinclination to exertion; and restlessness and want of sleep are experienced during night.

Of all the diseases which accompany phthisis in its course, none is so common as pleurisy.

Some authors allege that it is always present, and forms an essential part of the disease itself. According to Louis, it is absent only in about one per cent. In the examinations I have made of those who have died of consumption, I have found extensive and firm adhesions between the two pleuræ in the immediate neighbourhood of old cavities. Their extent and firmness seem to have been proportionate to the size of the cavities, and their nearness to the circumference of the lung. By means of this plastic exudation, the parietes of the chest become a part of the walls of the excavations, and afford additional protection against the disease making a passage into the pleura, an event which generally causes speedy death, but is, from the cause above stated, a rare complication. It is over this space that patients generally indicate the chief seat of pain, which is frequently complained of at a very early stage of the disease, and continues with more or less severity, until an excavation is completed, when it often gradually disappears. Some persons, however, suffer very little pain from this cause. As far as I have been able to observe, the inflammation of this membrane is rarely of that character, or sufficiently active, to induce effusion. The pain which phthisical patients suffer in the chest is chiefly, if not entirely, one belonging to inflammation, of a sub-acute character, of the pleura. Friction sounds are more frequently present than

is generally supposed; they are heard principally in the upper part of the chest; indeed I am at a loss to conceive why they have been so rarely noticed, unless the sounds proceeding from the lungs in the immediate vicinity of the inflamed pleura have rendered them less obvious. The soreness and pain over these regions are sometimes so great that the slightest pressure from the fingers or the stethoscope is insupportable.

Inflammation of the lungs is by no means uncommon in phthisical subjects. It manifests itself without any apparent cause, and gives way usually in a few days to mild treatment. I have generally found patients who have suffered from it once become very liable to a recurrence. It hastens the termination of phthisis, and in an advanced stage brings it at once to a fatal issue. I have sometimes met with acute and extensive bronchitis, occupying nearly all those parts of the lungs free from tubercle. This complication is one of a very alarming nature.

Inflammation of the lungs in phthisis occupies the superior part of those organs and the immediate neighbourhood of the tubercular deposits; it augments the dull sound on percussion, and a fine crepitation is heard over the space it occupies, whilst the respiratory murmur is almost or wholly absent. The lesion of the bowels, giving rise to diarrhœa, sometimes shows itself before the disease has made much progress; but is present in its

most severe form after excavations have taken place, and often defies the use of all remedies. At the commencement of the diarrhœa the tongue has often a healthy appearance ; it is sometimes furred at the base. The papillæ gradually enlarge, and become prominent and red, at first towards the tip and sides, and afterwards generally over the surface ; these in time disappear in patches, leaving a glazed bluish-red surface. The tongue eventually becomes wasted, and at last aphthous ulceration is established in the mouth and fauces. Wandering pains and soreness on slight pressure are felt in the abdomen. The pulse is quick and small, the skin hot, and wasting proceeds rapidly. In such cases, according to the urgency of the symptoms, more or less ulceration will be discovered in the bowels, and the grey, semi-transparent granulations will be found chiefly confined to the small intestines. The mucous membrane of the stomach is the frequent seat of disease ; its presence is generally announced by pain in the epigastric region, accompanied by nausea and vomiting.

Tubercular laryngitis is a very painful affection, and a very troublesome one to combat. It appears at all stages of phthisis, sometimes manifesting itself before expectoration is established ; at other times—and as more frequently happens—not until the disease has destroyed a considerable portion of the substance of the lungs ; but as it

occurs at that period of the disease before expectoration has commenced, it cannot always be owing to the acrid and irritating nature of the sputum passing over the surface of the larynx, as alleged by some writers, but probably depends on the same independent cause in which similar lesions of the stomach and intestines originate. When the epiglottis is the seat of ulceration, considerable pain attends expectoration and deglutition. The latter function is sometimes performed with so much difficulty that fluids escape through the nostrils. Pain is severe, and confined to the superior portion of the larynx ; hoarseness is not present in this affection. When the vocal cords are attacked, hoarseness and a total loss of voice usually result. The seat of pain is lower than in ulceration of the epiglottis. When the substance of the larynx is affected, the pain is diffused over a wider surface. In ulceration of the trachea, a sensation of fulness and heat are perceptible in that organ. These symptoms of the affections just described, so satisfactorily point out their seat and nature, that it is unnecessary to dwell on their diagnosis. Auscultation of the larynx has been studied chiefly by Dr. Stokes and M. Barth ; but, as far as regards ulceration of that organ and its immediate appendages, it does not appear to be of any great value. The bronchial glands frequently undergo tubercular degeneration ; but, from the obscurity of the symptoms, it

is rarely ascertained until after death. However, from their increase in size, no doubt they sometimes obstruct the circulation in the adjacent vessels, thereby inducing effusion, and also cause difficulty of breathing by compressing the lower part of the trachea at its bifurcation.

Tubercles are also met with in the mesenteric, lumbar, cervical, and prostate glands, the spleen, ovaries, kidneys, heart, uterus, and liver. When the peritoneum is attacked, considerable distension and pain is experienced in the abdomen, which is augmented by pressure, or by those changes of posture which render the walls tense. A clear sound is elicited by percussion, unless effusion has occurred. When this takes place, and if in small quantity, auscultation detects a friction sound. This may sometimes be recognised by examining the patient in the erect posture above the line of fluid, when it has failed to be observed in the horizontal position.

Tubercular meningitis is a more common disease in children than in adults. Hydrocephalus, or water in the head, usually depends, in its acute form, on grey, semi-transparent granulations, deposited in the arachnoid, and chiefly in the fissure of Sylvius. The chronic form of the disease is generally the result of crude tubercles deposited in the substance of the brain. When this affection complicates phthisis, it manifests itself, according to Louis, by intense frontal head-

ache; the face is alternately pale and flushed, the intellect is blunted, and vomiting comes on with the headache. These symptoms continue for a few days with paroxysmal exacerbations, accompanied by piercing cries. A more bewildered expression follows; the previously contracted pupil dilates; muttering, and occasionally violent delirium, precedes somnolence and coma. Hemiplegia occasionally ensues; the paralysis sometimes affects only a part of the face or an eyelid. The vomiting disappears in a short time; dyspnœa and fever diminish, except during the last few hours of life; the pulse is very rarely irregular; the temperature of the skin varies with the pulse; and the disease terminates in coma from the eighth to the fifteenth day.

More or less deafness is not an uncommon complication of phthisis. I have seldom seen this condition relieved by any treatment.

Fatty degeneration of the liver has long been observed as an occasional concomitant of phthisis. It seems chiefly confined to consumptive subjects. The enlargement the liver undergoes entirely depends on the quantity of fat deposited within its structure, and this is so generally diffused that the increase of volume in no way impedes its functions; thus affording no sign of its presence except increase of bulk, and hence is rarely diagnosed. A short time since, I examined the body of a phthisical lady who had been under

my care eighteen months, the wife of a remarkably intelligent medical man, whose liver presented all the characters of this disease in a marked degree; she, however, at no period had any symptoms referable to the hepatic affection, which was, consequently, not suspected to exist.

Diseases of the heart, which complicate phthisis, are chiefly functional; palpitation, or irregularity of the heart's action, and fainting generally, co-exist with dyspepsia, and probably arise from reflex action. General hypertrophy of the heart, as a concomitant in phthisis, is not often met with; M. Louis says it is more frequently diminished in size than otherwise. Considering the obstruction the blood meets with in the right side of the heart, it is wonderful structural diseases are not more frequent. M. Bizot* has recorded four remarkable cases of partial fatty degeneration of this organ; the liver had undergone the same transformation in these subjects. In a case of pericarditis, grey, semi-transparent granulations have been observed by Louis, under the serous lamina of the pericardium. This case is, I believe, unique.

* *Memoires de la Société Médicale d'Observation*, t. i. p. 290.

CHAPTER V.

PATHOLOGY OF PHTHISIS.

SINCE the period when Bayle* discovered miliary granulations, the pathology of tubercle has undergone considerable investigation by many of the ablest physicians of Europe. Several species, supposed to have distinct origins, have been described by these writers, although there is good reason for believing that they are all developed from the grey, semi-transparent granulation, or from the irregular masses of grey semi-transparent matter. Eventually, a yellow opaque spot is observed, generally in the centre of the granulation, which had previously augmented in size, and in this way it is transformed into what is denominated tuberculous matter. The grey shapeless masses undergo a similar transformation, by yellow opaque specks presenting themselves in various parts, which in time coalesce. Much discussion has arisen respecting the precise seat the disease occupies in the lungs; one

* *Recherches sur la Phthisie Pulmonaire*, par G. L. Bayle. Paris, 1810.

writer locating it in the minute bronchi; another in the air cells; and a third in the terminal branches of the pulmonary artery. Each has its supporters; but at present the question is unsettled, and will probably remain so until it is decided by the microscope.

Although both lungs generally suffer from phthisis, it usually proceeds more rapidly in one than in the other. Sometimes, however, the disease is entirely confined to one lung.

Of the various phenomena of consumption, the systematic deposition of tubercles in the superior part of the lungs is the most extraordinary. Whether they are held in solution by the blood, and precipitated in the tissue of the lungs, after the carbonic acid gas and water, which might have held them in solution, have been given off; or whether the physiological changes which are constantly taking place in the blood and air contained within the lungs, are carried on to a greater extent in the upper lobes than in the middle or lower, and in this way become more liable to disease, it is not easy to determine; but there can be no doubt about the fact, that the upper lobes are first attacked, and become the principal seat of the affection. It is here that cavities are usually formed. Below these crude tubercles, and still more inferiorly, grey, semi-transparent granulations are met with. The latter, as well as the indurated tuber-

cles, would, no doubt, terminate in excavations, did not the destruction in the upper lobes destroy life. The time occupied in the transformation of the grey, semi-transparent granulations into softened tuberculous matter varies considerably. In acute phthisis, two or three weeks sometimes suffice, whilst in the chronic form many months elapse before it is accomplished. Encysted tubercle is a very rare form of the disease; I have recorded a case of this kind, communicated to me by a medical friend, in a subsequent page.

Before the softening of tubercles takes place, the air cells, in consequence of compression, must inevitably have less capacity for atmospheric air than they had in a state of health; and although the deficiency, for a time, is made up by a distension of the healthy cells, still this source becomes inefficient as the tubercles soften, and fresh depositions of tubercular matter take place; hence, a smaller amount of oxygen is supplied to the system, through the medium of the lungs. According to Liebig's theory, carbon, under these circumstances, should accumulate in the lungs, in consequence of an insufficient supply of oxygen to consume it, and a fall of temperature ought to ensue. This latter condition, however, is certainly not the case; for it is well known that the temperature of phthisical patients is not only equal, but often above that of healthy persons.

That there is no diminution of carbon may be proved by the fact, that consumptive subjects have often an excellent appetite, and, therefore, consume in their food an amount of carbon equal to that which obtains in a state of perfect health.

As the grey granulations first become yellow and opaque in the centre, so does the tuberculous mass generally commence softening at the same place; this process ordinarily begins in several portions of hardened tubercle about the same time, which gradually extends to the circumference. The softened matter is discharged into the first bronchial tube, which is perforated by means of ulceration, and in this way finds a ready exit, mixed with the bronchial secretion and saliva. At length caverns of various size are formed, which gradually unite by irregular communications into a principal one, which is generally intersected by bands that cross it in various directions. Where excavations have been slowly formed, they are usually lined by a pseudo-membrane, loosely attached to their walls, which somewhat resembles mucous membrane in appearance. The bronchial tubes above cavities, through which the sputa passes, are always observed to be red and highly congested, whilst those below retain their natural character.

The interesting fact observed by M. Schroeder

van der Kolk, and more particularly demonstrated by M. Natalis Guillot,* that the circulation usually carried on in branches of the pulmonary artery, near grey granulations, tubercles, and tuberculous cavities, is arrested, and that the blood is now circulated by a new series of arterial vessels, is a singular and unexpected discovery. This vascular net-work enlarges, according to the extent of the disease; and, in the event of excavation, forms tufts upon its walls, and empties itself into the pulmonary, bronchial, and azygos veins.

No organs except the lungs are so liable to tubercle as the bronchial glands. These are also often the seat of phosphate of lime concretions. The mesenteric glands are frequently attacked by this disease; the cervical, lumbar, and prostate, less frequently. Chronic peritonitis arises from tubercles deposited in the peritoneum, in which the omentum and mesentery are usually involved. The kidneys, spleen, liver, uterus, and ovaries, are more rarely the seat of tubercles. Grey granulations are frequently met with in the small intestines, in connection with ulceration of the mucous membrane of that canal; ulceration is equally common to the mucous membrane of the large intestines, but the grey granulations are less so.

Granulations are frequently met with in infancy

* L'Expérience, t. i., p. 545.

and childhood, situated in the arachnoid, in the fissure of Sylvius, and hard tubercles are found in the brain itself. After puberty, the same lesions are met with in conjunction with phthisis, but much more rarely.

The stomach frequently undergoes great enlargement during the progress of phthisis, which Louis attributes to the effects of coughing; its mucous membrane is subject to a variety of morbid changes—such as attenuation, thickening, and softening; sometimes it assumes a red appearance, at other times becomes ulcerated. A peculiar mammellated character of this membrane has been described by Louis as very common in phthisical subjects. The pharynx and œsophagus are seldom affected in phthisis.

The trachea often suffers from ulceration, which is sometimes very extensively diffused over its surface. The larynx and epiglottis are affected by the same complication, but less frequently.

Inflammation of the lungs occasionally supervenes in phthisis, and pleurisy in some form is almost always present. When the latter condition is attended by effusion, œgophony may be detected either before the quantity of fluid secreted is of large amount, or when the greater part of it has been absorbed.

Fatty degeneration of the liver is witnessed less frequently in this country than in France. Louis found one-third of his phthisical patients

affected with this lesion—a much larger percentage than has been met with in England. The disease has been subjected to microscopical investigation by Mr. Bowman.* The result is highly interesting and valuable. He states, “It seems to show that the fat is an *increase of a normal constituent*, and not a formation altogether unnatural in kind, thus distinguishing it from the fatty degeneration of other tissues, where fat is deposited in situations from which it is naturally absent.” He adds, “The microscope at once reveals the seat of the *fatty deposit in the diseased state of the organ*. Instead of containing a few minute scattered globules, the *nucleated particles are gorged with large masses of it*, which greatly augment their bulk, and more or less obscure their nuclei.” Mr. Bowman has published some ingenious views on the cause of the disease; but granting that it may arise through the supplemental duty the liver has to perform, in removing the superfluous carbon from the body, which the diseased lungs are incapable of performing, why are two-thirds of the cases occurring in France unaffected by the disease?—and why is it not as common in asthma, chronic pleurisy, and bronchitis, where the volume of oxygen consumed by the lungs is below the healthy

* Observations on the Minute Anatomy of Fatty Degeneration of the Liver, by W. Bowman, Esq., F.R.S. “Lancet,” January, 1842.

standard, and insufficient for decarbonising the blood?

The heart is generally below the natural size, flaccid, and sometimes presents the character of fatty degeneration.

I have invariably found present in the expectoration of consumptive persons the cryptogamic plant, first, I believe, observed by Dr. John Hughes Bennett, whose views on the subject are recorded in the Transactions of the Royal Society of Edinburgh. But, unfortunately, it is met with also in the sputum of the non-phthisical, which destroys its value as a diagnostic sign of phthisis.

In the first edition of this work, I described a species of globule, that I detected both in tubercle and in tuberculous expectoration, which I called, from its appearance, *spherical*. Since that period abundant opportunities have occurred for investigating the subject further, and these inquiries have greatly tended to strengthen the views I then ventured to advance. These globules I have repeatedly found in softened tubercle, which had been removed from the centre of a mass that had not yet made an opening into any of the neighbouring bronchi. They are sometimes observed detached and scattered, but not unfrequently regularly and distinctly arranged in rows, and piled upon each other in the most perfect geometrical order, and form a beau-

tiful microscopical object. They are transparent, without nuclei, and are about $\frac{1}{8000}$ part of an inch diameter. In this state they may be looked upon as ripe; but those more commonly met with, and I believe identical with the spherical globules, only existing in a different stage of development, are the masses of granular bodies, of a uniform size. This appearance is probably due to compression, and they would eventually become spheroidal did they undergo the complete process of ripening.

It was observed by Louis some years ago, and has been generally admitted since, that after puberty, if tubercles exist at all, they are always to be found in the lungs, and in a more advanced stage than in any organ of the body. This is a highly important and interesting fact. Hence it would appear, that it is only through the medium of phthisis that other organs become liable to tubercle, which having, as it were, saturated the lungs, finds an outlet in the bronchial glands, peritoneum, and elsewhere.* Tubercles appear

* It appears that in children tubercle is sometimes found in the head or abdomen, without any trace of tubercular deposit existing in the lungs. Dr. Hennis Green states, in a valuable paper, entitled "A Tabular View of the Seat of Tubercle in 180 Cases of Tubercle in the Lungs of Children, &c.," that he met with "three cases of the existence of tubercle in the cavities of the head or abdomen, without any trace of tubercular deposit in the chest. In one the matter was confined to the mesenteric glands; in a second to the brain and mesenteric glands; in a third to the mesenteric and

to be simultaneously propagated in the parts just mentioned, as they are generally found to have reached an equally advanced stage in all of them, but in a less degree than in the lungs.

inguinal glands. I mention this as a proof that M. Louis' law does not extend to children—a fact which I believe I was the first to point out several years since.”

CHAPTER VI.

DIAGNOSIS.

To know a disease is said to be half its cure, and no part of the study of medicine is more important than the diagnosis of diseases; for, as they require, according to their nature, different modes of treatment, it is upon accurate diagnosis we must chiefly depend to indicate the means of cure. A correct diagnosis is, in all cases, essential; but in those affections which generally run to a fatal termination, or endanger life, it is of the utmost consequence; for, if they are mistaken for diseases of a more harmless character, the period when they might have been combated with success is past before their real nature is discovered. Few complaints have been found more difficult to diagnose than phthisis in its early stage; but much of the obscurity in which it was involved has been removed since the discovery of percussion and auscultation; and it is to be hoped that the microscope and the breath-meter will enable the physician to recognise

consumption with greater accuracy, and at an earlier period than hitherto.

We are indebted to Avenbrugger for the art of percussion ; and being announced at a period when it must have been so greatly needed—many years before the discovery of auscultation—a favourable reception might have been anticipated ; but this was not the case—it shared the common lot of all discoveries in medicine. It was received with ridicule and contempt, and for many years was consigned to oblivion. Avenbrugger, after prosecuting the subject under many difficulties, and with great zeal, for a lengthened period, published his work in the year 1763, entitled—“ *Inventum novum ex Percussione Thoracis humani ut signo abstrusos interni pectores morbos detegendi.*”

A translation appeared about seven years afterwards, by Roziere de la Chassagne, of Montpellier ; and, with the exception of a few scanty notices, to be met with in the works of some three or four medical authors who flourished towards the close of the last century, the subject was not attended to until it attracted the attention of Corvisart. This distinguished physician, being impressed with the great importance of the subject, after many years of unwearied labour in its study, put forth another translation, with his own valuable observations appended ; and it must be admitted, that we are indebted to him for its

being brought into general use. It was for the purpose of diagnosing diseases of the chest, that the Dutch philosopher employed this new means of investigation; and had it been more favourably received by his brethren, he would, no doubt, have extended its use to every cavity of the body, which has since been done by his enthusiastic disciples.

In order to be practically acquainted with the art of percussion, and to employ it successfully, the following conditions are essentially necessary:—

First—That the observer's sense of hearing and touch be normal.

Second—That he be acquainted with the three elementary sounds arising from the variations of density in matter, when a solid, a fluid, or a gaseous substance is percussed—as all tones resulting from percussion are modifications of these. A good example of the first may be derived from the liver; of the second, from the distended bladder; and of the third, from an emphysematous lung, or the stomach after a long fast.

Third—That he be familiar with the sensation of resistance which bodies of different densities impart to the fingers on being struck, as it bears the same relation to the physical condition of an organ as sound elicited by the same means, hence important to be cultivated; moreover, it strengthens and corrects the previous judgment,

formed upon the tone produced, whether the body be hard, soft, or elastic ; the first offering more resistance than the second, and the second more than the third. The liver, the distended urinary bladder, and the emphysematous lung, are good media for studying this peculiar sensation.

Fourth—That the strokes be given with uniform force and quickness, and perpendicularly to the part struck ; that the tones may be alike, or vibrations will be produced, leading to erroneous conclusions.

Fifth—That the finger or pleximeter, through which medium the sound and sensation of resistance is derived, be so applied to the surface, that no hollow exists between them, or a deceptive tone will be the result, tending to an incorrect diagnosis.

Sixth—That the art be daily practised.

Thus, then, the theory of percussion seems to be governed by laws so simple and so easily understood, that the nature of all matter found within the human body in relation to density may be readily ascertained, however slightly it varies. Hence its claims would appear to be superior to those of auscultation as a means of diagnosing diseases of the chest. But although this excellence be conceded theoretically, practically it does not hold ; and it is somewhat extraordinary that there are medical men who still believe, of the two, that it is more valuable to the practitioner than auscultation.

This opinion has been refuted by many authors, who are regarded as authorities on thoracic disease; nay, any unprejudiced person may satisfy himself of its inefficiency to produce such shades of difference in sound as can clearly be appreciated in those cases of early phthisis in which the expansive powers of the chest have undergone no apparent diminution. In such cases he will often find the sound resulting from percussion so much alike on both sides, that no clue to the locality of the disease can be detected; whilst auscultation marks its existence by a prolonged and perhaps jerking expiration, or reveals its seat by a coarse and noisy respiratory murmur. And even where dulness on percussion is evident, the nature of the disease is sometimes so involved in obscurity, that it cannot be determined without the aid of the stethoscope.

It is alleged by some of the advocates of percussion, that, to appreciate the slighter shades of sound and sense of resistance, a pleximeter is essential, and others insist on the necessity of a hammer also; but this much is certain, that not only has the apparatus for mediate percussion been abandoned by many after considerable trials, but even by some of those who first introduced it to notice, which could hardly have happened had this new method been as successful as it is affirmed to be. It is true that M. Piorry, and others equally skilful, by tact, practice, and the

pleximeter, define the magnitude of the heart, mark out the dimensions and course of the aorta, and map out the space which the spleen and kidneys occupy; nor is this, perhaps, a very difficult matter for those who are frequently engaged in the task: it is something to know that the organ they are seeking exists beneath the part under examination. But in early phthisis, where the presence of disease is doubted, the uncertainty is alone an obstacle, unknown to him who is tracing an outline of the situation of the gall bladder. Neither is there any substantial reason for concluding, because an individual can accurately define the size of the spleen, that he can also detect a deposit of tubercles in the lungs, the existence of which is manifested only by a prolonged and jerking expiration. Moreover, mapping the organs cannot always be depended upon. I recollect seeing an interne of M. Piorry trace out the situation of the gall bladder in the dead house of La Pitié; and so confident was he in the signs afforded by percussion, that he plunged a scalpel, as he believed, into that viscus, and immediately opened up the cavity of the abdomen to show the degree of certainty the art had reached; but, unfortunately, it was found that, although the instrument had penetrated the abdomen, it had not touched the gall bladder by half an inch.

Percussion, undoubtedly, is a great boon to

medicine; it has done much in enabling the physician to investigate disease at a period when the means of doing so were fewer and more uncertain than they are now. Let us not, however, in appreciating its value, overrate its worth, and place it before, or even in the same rank, with auscultation; which would not only mislead the student, but do an injustice to the stethoscope itself.

No doubt, much may be done by careful and well-trained observers; but the great stumbling block is one which will probably never be overcome, and rests chiefly with the organ of hearing. Were that sense as highly developed in civilised, as it is in savage life, we might hope to recognise sounds which now entirely escape our notice; or could the sense of hearing be sharpened by any mechanical contrivance, as vision is by optical instruments, something further might be accomplished; but the auditory apparatus is less fortunate than the visual one, and belongs to that order of the senses which has derived but little assistance from the hand of the mechanic; therefore it is probable that the art of percussion has reached its maximum of perfection.

The method of ascertaining the existence and extent of the frontal sinus by percussion, I have not yet seen noticed by any author. On mentioning the subject to my friend M. Foville, the distinguished

writer on the brain and nervous system ; he informed me he had repeatedly traced its dimensions on the dead subject by this means, and verified its correctness by an internal examination of the cranium. This fact will probably be found useful to the phrenologist, as the frontal sinus has been one of the great difficulties he has had to contend with.

The value of auscultation in chest affections is now so well established, that it is hardly necessary to make a remark on the subject. Although it had struck the mind of Hippocrates, Hook, and Double, Laennec is universally allowed to have been its discoverer ; and he, like Avenbrugger, was ridiculed, and the stethoscope regarded as an instrument fit only for mountebanks by the Solons of the profession. This opposition gradually disappeared ; and so great has been its triumph, that now every well-educated medical man practises auscultation, and the stethoscope accompanies him in his daily visits to his patients. It has been a fashion, with some of the authorities on this subject, to enlarge on the vast amount of time and practice necessary to arrive at a thorough knowledge of this important branch of medical education. For a just appreciation of its value, it is necessary to be well acquainted with the sounds emitted by the lungs and heart in health ; and then a thorough knowledge of those created by disease, which should

be repeatedly verified, by the examination of bodies after death, that the judgment may be corrected and strengthened. All this can be acquired from a good teacher in an hospital in the course of a few months.

In support of the foregoing opinion, I may observe that the immortal discoverer of auscultation only commenced his researches at the age of thirty-five, and in the brief space of two years so far completed them, that, notwithstanding the unremitting labours of thousands of his disciples, very little has been discovered since; and he found time besides to publish his great work in two volumes octavo. “The diseases of the lungs and heart,” says M. Laennec,* “are so common, that a very brief attendance in an hospital will put it in the power of any one to obtain all the knowledge necessary for his guidance in this important class of affections. In this way, there is no physician who may not, in a very little time, learn to recognise with certainty not only the cases above mentioned, but peripneumony, pleurisy, latent catarrhs, and even the very rudiments of these affections.” Although some persons accustomed themselves to apply the ear to the walls of the chest, this plan has obviously many disadvantages and inconveniences foreign to immediate auscultation; hence, it is much better to employ the stethoscope on all occasions in which

* Forbes' translation of Laennec. 1834. p. 8.

it can be done, to habituate the ear to its use. I would premise that the chest should be uncovered for the examination, or, if any dress intervenes between it and the instrument, that it be made tight, so that no sound be produced tending to mask or modify that arising within the chest.

I entertain the hope, from the number of physiologists who are engaged in microscopic observations, that the microscope will eventually throw some important light on the early diagnosis of phthisis. At present nothing more definite has been observed than the spherical globules I called attention to in the former edition of this work, and which are noticed at page 55. Unfortunately, they seem peculiar to advanced phthisis, a period of the disease when we require little or no additional means to decide its nature. The cryptogamic plant, first noticed by Bennett, I have found in all the sputa I have hitherto examined. This applies to the non-phthisical as well as the phthisical, consequently, as a diagnostic sign, is of little or no value.

I have elsewhere expressed an opinion on the usefulness of Hutchinson's breath-meter. A considerable time, however, must necessarily elapse before a sufficient number of facts can be registered to fully establish its just value in early phthisis.

Immediate auscultation is employed for ascertaining the condition of several of the internal organs of the body. When the lungs are subjected to examination, if the sound of the voice be not audible to the ear applied to the stethoscope, when placed over the anterior walls of the chest, an inch or two from either side of the sternum, but to that which is free, it is the type of healthy vocal resonance ; and if heard at the distal end of the instrument, when over the upper inter-scapular and superior sternal regions, it is natural bronchophony. But if the voice apparently speaks into the ear of the auscultator, when the throat is examined over the trachea, it is pectoriloquy, or, as it is sometimes called, from its being produced in the trachea, natural tracheophony. Over the regions where bronchophony is elicited, natural bronchial respiration is heard, which is a harsher sound than the true vesicular respiration ; and the termination of inspiration and the commencement of expiration are better marked. The respiratory, or, as it is sometimes called, pulmonary or vesicular murmur, has the greatest intensity over the anterior and upper parts of the chest, and the axillary and sub-scapular regions. Percussion applied to the walls of the chest yields a more or less distinct, clear sound, which is more apparent in some regions than in others, considerable tact being required to discover it. If per-

cussion be applied with too much force over the right anterior inferior region, a dull sound is produced, owing to the presence of the liver underneath ; on the contrary, if it is more gently applied, a clear sound is elicited, in consequence of a thin stratum of lung overlapping the diaphragm and liver. The same observations will apply to the lung which rests upon a portion of the pericardium. The upper, anterior, and axillary regions, are the most sonorous when percussed. Such are the usual sounds derived from the chest and throat in a healthy state through auscultation and percussion.

The diseases commonly mistaken for consumption are pleurisy, pulmonary abscess, cancer and sphacelus of the lungs, dilatation of the bronchi, and bronchitis.

Pleurisy, when ushered in by lancinating pain in the chest, febrile excitement, dry cough, difficulty of breathing, terminating in effusion, is readily distinguished from phthisis ; but sometimes it affords no signs of its existence sufficient to induce the patient to apply for relief until constitutional and local derangement are developed—identical with the symptoms of phthisis—as emaciation, difficulty of breathing, cough, purulent expectoration, hectic fever, dulness of sound over the diseased surface, with augmentation of the sounds of the heart, the respiratory

murmur being feeble, deficient, and bronchial, and more or less masked by friction sounds. Such symptoms are not uncommon after the absorption of the bulk of the fluid in a protracted case of chronic pleurisy, and make the diagnosis a question of considerable difficulty. If the disease be unconnected with tubercular deposit, the lung on the opposite side of the chest will be found healthy, as double pleurisy is as rare a disease as phthisis is common to both lungs.

Pulmonary abscess is never preceded by an attack of hæmoptysis, nor accompanied by any disease of the larynx, trachea, or epiglottis, or affection of the stomach and bowels; as far as the signs of auscultation and percussion extend, it is identical with phthisis, but the situation of the cavern is either in the middle or lower lobe; and it may be further characterised by its following an attack of inflammation of the lungs, and by the shortness of its course. The expectoration has generally a disagreeable odour.

Sphacelus of the lung is preceded by chronic inflammation, and characterised by symptoms very similar to those which are met with in pulmonary abscess; the breath and expectoration are remarkably foetid.

Cancer of the lung is rarely found in both sides of the chest; the affected one is usually œdematous, particularly the arm, face, and neck of the same side; the veins in the neighbourhood

are congested from the pressure the superior vena cava is subjected to by the disease. Percussion, before softening has taken place, yields a dull, wooden sound ; and auscultation elicits tubular breathing and bronchophony. After softening, the microscope would decide the non-phthisical nature of the affection from the absence of the spherical globules in the sputum.

Dilatation of the bronchi is made out with more difficulty, from its having so many symptoms in common with phthisis. The emaciation and hectic fever are less marked, but the cough and difficulty of breathing are equally severe. Percussion sometimes affords a dull sound over the seat of the disease, which is often in the middle lobes ; the respiratory murmur is feeble, harsh, bronchial, tubular, and cavernous ; the rales are sibilant, sonorous, sub-crepitant, and cavernous, with bronchophony and pectoriloquy ; the heart sounds are also heard with unnatural clearness. After having watched the disease for some time, it is possible to determine its character from the progress it makes, which is slower than that of phthisis after the formation of caverns.

Pulmonary catarrh, or bronchitis, frequently commences with coryza, which is not observed in phthisis. In its acute form it is common to all parts of the lungs, and when any considerable portion is involved, the cough and difficulty of

breathing are very severe, accompanied with a frothy mucous expectoration. There is much fever, and the respirations, which ordinarily range from sixteen to twenty per minute, reach thirty, forty, and occasionally as high as sixty.

Percussion ordinarily yields natural sounds ; the respiratory murmur is often obscure, occasionally suppressed, and frequently masked by wheezing, a compound of sibilant, sonorous, and sub-crepitant rales, which may be heard sometimes several feet from the patient, and communicates a powerful vibration to the hand when applied to the thoracic parietes. - Pulmonary catarrh in its chronic form, or, as it is called, winter cough, is an affection mostly confined to advanced life, and attacks the most dependant parts of the lungs, being rarely met with in the middle or upper lobes. The general symptoms are much less severe than those which accompany the acute form ; but the sounds, resulting from percussion and auscultation, are similar : sometimes, however, a little dulness is elicited.

I recently had an opportunity of seeing a case of diseased heart, in which there was great obstruction to the circulation, produce so much congestion as to lead several practitioners, and among them a distinguished writer on auscultation, into the belief that advanced phthisis existed. A post-mortem examination, however, showed clearly enough that the lungs, with the

exception of being unusually loaded with blood, were healthy.

In determining the presence of consumption in its first stage, it must be remembered that there is generally dulness on percussion, to a greater or less extent, over the superior portion of one side of the chest, about the clavicular regions, where the respiratory murmur is imperfectly developed, feeble, and bronchial ; inspiration is performed with jerks ; expiration is loud and prolonged. On the opposite side the respiratory murmur is augmented in intensity, and is called puerile, from resembling that of children. Gradually a slightly diffused crackling sound is heard, accompanied by bronchophony. In consequence of the increased density of the upper lobes of the lungs, from the deposition of tubercles, the sounds of the heart are more audible, and flattening of the diseased side is evident. With these physical signs there is cough, expectoration, emaciation, and hectic fever.

In the second stage of the disease, when the tubercles have begun to soften, dulness of sound on percussion is more or less complete throughout the superior portion of the chest, on the side most affected. The respiratory murmur is feeble, harsh, and blowing ; the rales are dry, crackling, humid, clicking, and sub-crepitant. When the tubercular matter begins to be freely dislodged, imperfect pectoriloquy is observed.

In the third and last stage of the disease the depressions in the walls of the chest become more evident ; they are irregular in form and situation, according to the extent and precise seat of the mischief beneath ; they usually occupy the upper part of the chest, which tends, more or less, to produce deformity. Dulness of sound on percussion continues, unless a large cavern is situated beneath, giving rise to an amphoric or cracked metal sound ; the respiratory murmur becomes tubular and cavernous, accompanied by gurgling rales and pectoriloquy ; the presence of metallic tinkling is not so frequently met with as was formerly believed, and the absence of pectoriloquy is by no means a proof that excavations of the lungs do not exist. Unless caverns of considerable magnitude are formed in the substance of the lungs, and tolerably free from secretion, they will not afford this special character ; for if small or of an irregular form, with bands running across, and numerous bronchi opening into them ; or if they hold a more central situation, and are more or less surrounded by healthy lung, pectoriloquy will not be found to exist ; and the morbid condition is then indicated by bronchophony.

CHAPTER VII.

TREATMENT.

IN the treatment of severe and fatal diseases, it is a duty incumbent on medical men to call to their aid every method of treatment recommended as useful by competent authorities, and to have recourse to all the probable elements of success, however scanty and uncertain they appear to be, that every means may thus be exhausted in their efforts to cure or relieve these affections. Simple and easy as this task appears, such is the unsettled state of medical opinion on the subject, that it has hitherto been found impossible to effect so desirable an object. This observation particularly applies to the treatment of pulmonary consumption. One class of practitioners advocates climate as the most likely means of combating the disease, to the exclusion of almost all others. Another considers fumigations alone sufficient to cure phthisis. A third regards inhalation as the sole means to be depended on. A fourth entertains a high opinion of external applications ; and a fifth has no faith in any but in-

ternal treatment. So dogmatically do the adherents of these varied doctrines support their views, that they regard one another as visionaries and enthusiasts, and consequently look with much jealousy on each other's views and opinions.

The value of all these methods have been probably overrated by their propounders and supporters; nevertheless they have been sustained by the testimony of men whose professional reputation stands so high that they are deserving a patient and impartial investigation. No doubt, upon inquiry, they will all turn out to be more or less efficacious in one form or other of the disease, and when combined may exert such a salutary influence over it, that some of those cases which at present are regarded as incurable may be restored to health. Why are consumptive patients to be deprived of the benefit of the united power of all these methods of treatment? is a question likely to be asked; and the answer will be, the carelessness, petty jealousies, and party feelings of medical men. The reign of this factious spirit, it is to be hoped, is fast drawing to a close, and a better state of things is approaching for those individuals labouring under this awful malady, which destroys one-fifth of the population of these islands.

The influence of climate on the phthisical state has occupied much attention from a remote period, and many professional men at the present

day regard it as the only means of arresting or curing the disease. Upon inquiry, I believe it will be found to have been too highly extolled. I question if there be any well and satisfactorily authenticated cases of recovery from confirmed phthisis through the simple agency of climate. Many of the alleged cures are mere cases of chronic bronchitis; others are those of individuals who are sent out to Madeira, Italy, Malta, and elsewhere, because they happen to have been members of a consumptive family, and have lost perhaps brothers and sisters from the disease, and are merely suffering from slight catarrhal affections, or debility resulting from fatiguing employment. Their parents and friends, fearing every little ailment to be the commencement of the malady, or its immediate precursor, send them abroad; and, on returning well, these patients give the warm climate the credit for their improved health, which would probably have been quite as good had they remained in their own country. "Thus I have seen," says M. Louis,* "very recently a patient who had just arrived from America, and believed himself cured of tuberculous disease, for which he had been sent to Europe. This person had in reality nothing but simple pulmonary catarrh."

It is, or ought to be, well known that phthisis is a common disease in all parts of the world,

* Op. cit., p. 549.

although it is more frequent in some countries than in others.

Some writers believe that the disease is almost unknown in the South of Europe, and that Madeira, Malta, and the West Indies are altogether exempt from its ravages; this is far from being the case. Dr. Gourlay* has stated that genuine consumption is a very common and fatal disease in Madeira, whilst Dr. Renton and Heineken admit its existence, but deny its frequency. Sir G. Blane† is of opinion that although consumption is less common in the West Indies than in colder climates, it is in most instances more rapidly fatal. Cases of consumption occurring in the West Indies, are related by Sloane, in his history of those islands. Simmons‡ comes to the conclusion that the duration of the disease is shorter in warm climates. Dr. Reid§ observes that Winterbottom states the Nova Scotians who settled at Free Town, in Africa, became occasionally consumptive after recovering from other diseases, and died sooner than they would have done in colder climates. Southey|| says the disease is rare in Malta, Sicily, and other islands in

* W. Gourlay, M.D. *Observations on the Natural History, Climate, and Diseases of Madeira.* 1811.

† G. Blane's *Observations on the Diseases of Seamen.* London, 1785.

‡ Simmons' *Practical Observations on the Treatment of Consumption.* London, 1780.

§ *Op. cit.*

|| *Op. cit.*

the Mediterranean. M. Louis* states that “modern observers” have shown by statistical evidence that phthisis is prevalent in all countries, the hottest and the coldest. Dr. Journec’s† tables leave no doubt upon this point as regards the chief towns of Italy, where it is as common as in Paris.

Celsus is one of the earliest writers who has recommended change of air and of climate. He considered long voyages also beneficial.

Fothergill, in the fifth volume of the “Medical Observations,” is favourably disposed to the treatment of consumption by change of climate, but is satisfied with the south western parts of England.

Mosely‡ prefers the climate of England to all others for the phthisical, and particularly points out Penzance as the best place for their residence. Dr. Trotter§ is a great advocate for the removal of phthisical patients to warm climates. Dr. Southey|| also supports a similar doctrine. Laennec¶ strongly recommends a change of climate as the best method of treating the disease ; and every medical man is well acquainted with Sir James Clark’s excellent work on the subject.

* Op. cit.

† Bulletin de l’Académie Royale de Medecine. Paris, 1839.

‡ R. Mosely’s Treatise on Tropical Climates. London, 1804. Ed. 4.

§ T. Trotter’s Medecina Norutca. London, 1804.

|| Op. cit.

¶ Forbes’ Translation of Laennec, p. 335. London, 1834.

On the other hand, we find Dr. Beddoes* observing that change of climate is generally recommended when the practitioner feels nothing more remains to be done by art. He disapproves generally of patients leaving their comfortable homes. Portal† considers climate of little importance; he has known consumption in the inhabitants of Languedoc or Provence retarded by a removal to Paris, and accelerated in English patients, or those of other northern nations, who had gone to the south of France for a purer air. Dr. Wells, in his examinations into the nature of pulmonary consumption, which appeared in the third volume of the “Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge,” considers Lisbon, Nice, Naples, and Madeira, as ineligible residences for the consumptive. Dr. A. Duncan‡ thinks, indeed, that change of climate has little or no power to promote a radical cure; and, among modern authors, Louis§ places little faith in the good to be derived from climate. He says, “The disease may drag through a lengthened course in all climates.” Thus I have seen females

* T. Beddoes’s Manual of Health. London, 1806.

† A. Portal, Observations sur la Nature et le Traitement de la Phthisie Pulmonaire. Paris, 1809.

‡ A. Duncan’s Observations on the Distinguishing Symptoms of three different species of Pulmonary Consumption. Edinburgh, 1813.

§ Op. cit., pp. 548, 549.

affected with phthisis for some time pass two successive winters in warm climates, return to Paris with the local disease somewhat more advanced than at the time of their departure, pass two succeeding winters in Paris, in apartments fitted for persons in their situation, and *cough less and feel better* than in the south. Have we not here a double proof of the slight influence of a warm climate, in winter, in retarding the progress of tubercles in persons usually inhabiting a cold or temperate country?

There is abundance of information on this subject; but such is the conflicting nature of that information, that it is almost impossible to determine its true value. From all that can be gathered from these contradictory opinions, it may be concluded that, as an adjunct to the more important medical treatment inculcated in this work, it is sometimes beneficial; but, as Dr. Duncan observes, climate cannot promote a radical cure. It may, however, in some rare instances, so much improve the general health as to check the further deposition of tubercles, and retard the malignant progress of those already generated, but cannot effect their removal when once formed. In order to arrive at a correct estimate of the real worth of change of climate to the consumptive, it must be considered apart from those collateral aids which do not in reality belong to it—as, for example, change of scene, and

the wholesome excitement of travelling—for these can be obtained without involving a winter's residence in a distant country.

In advanced cases, the baneful and cruel system of sending phthisical patients to a foreign country—away from those friends who can alone offer them consolation in their last moments, with the certain knowledge they will never return—cannot be too severely censured. If change of air can at any time arrest the disease, it is assuredly in its earliest stage; and not at that period when the physician has exhausted his skill in vain attempts to relieve the sufferer, whose lungs have undergone that extensive disorganisation which renders a cure hopeless.

It seems to be pretty generally admitted that variation of temperature is one of the great causes for propagating phthisis; hence it is less common in those countries where the transitions from heat to cold are neither considerable or frequent. Mere climate seems to have less to do with it, as it is neither so common in the cold regions of Russia, or in the warm countries of the southern latitudes, as it is in the more temperate climes of the northern parts of Europe. But as none of these countries are entirely free from occasional and sudden changes of temperature, an exemption from the disease is not to be expected. That climate is more or less valuable to the consumptive patient in proportion as

its temperature is fixed or variable, admits of further proof.

Dr. Young* observes, "for in reality the variations of temperature, if estimated by the total range of the thermometer in the twenty-four hours, are almost uniformly greatest in the hottest weather." "And in 127 patients," says M. Louis,† "admitted into the Hospital Beaujon, and in whom the period of the origin of the disease was inquired into with great precision, sixty-six contracted it in the warmest, and sixty-one in the coldest months of the year;" which goes far to prove that the advantages arising from change of climate, are chiefly owing to its temperature being less variable than that the patient previously lived in; for, according to M. Louis, the disease more frequently commences in the warm season of the year, at which period Dr. Young shows that the greatest changes of temperature occur. Hence it would appear that, for the prevention and cure of phthisis, a healthy and carefully regulated temperature, in a pure atmosphere, is a most desirable object of attainment, and one which would materially assist the medical treatment. Under the influence of such benign management, persons of delicate lungs would no longer suffer from the pernicious consequences of perhaps twenty variations of temperature in the twenty-four hours; but might live day

Op cit., p. 84 † Op cit., p. 506-507.

and night, if necessary, in a temperature of 60 to 65 deg. F. Nor is this a very difficult matter to accomplish, now that the system of warming and ventilating has undergone such improvement.

The subject of ventilation has occupied the attention of Dr. Reid for many years, to whom we are indebted for several great improvements in this department of hygiène. He is engaged to superintend and direct the arrangements for warming and ventilating the new houses of parliament, and consequently, his opinions on this subject are entitled to the highest consideration. He observes in his work lately published,* “ It is no exaggerated statement to affirm, that the greatest scourge with which this and so many other climates is affected, viz., consumption, owes its origin more to ignorance of the laws of health, connected with the peculiarities of exposure to alterations of air and temperature, and to the severity of local draughts, than to any disadvantages connected with the local state of the atmosphere, which cannot be met with proper care and attention.”

A warm, regulated temperature for consumptive patients has been recommended and attempted by several physicians of great eminence in their profession; Beddoes was amongst

* Illustrations of the Theory and Practice of Ventilation; with remarks on Warming, Exclusive Lighting, and the Communication of Sound, by D. B. Reid, M.D. p. 9. Lond. 1844.

the earliest ; since his time Dr. Buxton* warmly extolled and strenuously recommended its use in consumption and winter cough, and it is lauded by Southey and other writers on this subject of more modern date. Had they possessed the same facilities which can now be commanded for obtaining the requisite heat and ventilation, it would probably have been part of the ordinary treatment of the disease by this time:

An institution of any magnitude, constructed for working out these views, would require a very considerable outlay of capital for its erection and support ; but being for the *cure* of pulmonary consumption, I do not despair seeing it established, through the unbounded charity and benevolence of the inhabitants of this metropolis.

Besides the separation of patients, regulated temperature, and free ventilation, fumigations and inhalations of gases and volatile substances—which have been recommended from time to time—might be had recourse to. No full and fair trial has yet been given to this branch of the treatment of pulmonary disease. It has, however, been recommended from a remote period ; for we find Dioscorides† employing the fumes of sulphur in cough and consumption.

* An Essay on the use of a Regulated Temperature in Winter Cough and Consumption, by J. Buxton, M.D. London, 1810.

† Dioscorides, Fl. 63. B. C. v. 124.

Rhazes* used a mixture of arsenic, butter, and several of the gums, for fumigation.

Our countryman, Bennet,† warmly advocated the use of fumigations in phthisis. He observes, “that when there has been hæmoptysis, they ought never to be employed within a fortnight of its cessation.”

Riverius‡ speaks favourably of them, and relates a cure by the fumes of arsenic.

Willis§ says “that sulphurous arsenical fumigations act like a balsam to the lungs.”

Stahl || has found the sulphurous fumes of antimony beneficial.

Huxham ¶ and Mead** also favour this method of treatment.

Tralles †† employed the smoke of amber and mastich in some of the pulmonary affections.

Clapier‡‡ relates a cure of consumption through a residence in a coal mine. I am strongly disposed to believe that the comparative exemption miners have from phthisis, depends more on the

* Rhazes, Fl. 959. To Mans. x. 3. ix. 60. Antid. i. 34.

† Bennet, Tabidorum Theatrum. Leyd. 1742.

‡ L. Riverii, Opera Medica, fol. Geneva, 1728.

§ T. Willis, Pharmaceutice rationalis de Medicamentorum Operationibus. Oxf. 1675.

|| G. E. Stahl et Ch. Feder de Phthisi. Halle, 1740.

¶ J. Huxham, Observationes de acre et morbis-epedemicis, Plymuthi factae. London, 1751—2.

** R. Mead, Monita et Præcepta Medica. Lond. 1751.

†† B. L. Tralles, usus opii salubris et noxius. Breslau, 1757—62.

‡‡ Clapier, Jour. Méd. xviii. 59.

unvarying temperature in which they live, than on any remedial qualities which the air of these subterranean regions possess; presuming this view to be correct, it strengthens the value of a regulated temperature for the consumptive. Clapier also used the vapour of sulphur in his practice.

Lieutaud* praises the fumes of balsamic herbs.

Read† appears to have been the first who recommended a residence in the cow-house, which was afterwards employed with considerable success by Beddoes;‡ he also used some mixtures of gases.

Dr. Mudge§ was likewise an advocate for fumigations.

Sir Alexander Crichton|| has used the vapour of boiling tar with great success in this disease. Some trials which were made with this remedy in Berlin, seem to have been equally successful, but in England the reports of its efficacy are less favourable; indeed, Sir Alexander's cases are sup-

* J. Lieutaud, *Synopsis Universæ Praxeos Medicæ*. Amst. 1765.

† *Essai sur les effets salutaires du séjour des étables*, par M. Read. Lond. 1767.

‡ T. Beddoes' *Observations on the Medical and Domestic Management of the Consumptive, on the Powers of Digitalis, and on the Cure of Scrofula*. London, 1801.

§ J. Mudge's *Radical Cure for a Recent Catarrhus Cough*. London, 1779.

|| Sir A. Crichton's *Practical Observations on the Treatment and Cure of several Varieties of Pulmonary Consumption, and on the Effects of the Vapour of Boiling Tar in that Disease*. London, 1823.

posed to have been chronic bronchitis. Davis* admits its value in affording relief to the catarrh which commonly attends phthisis, but denies its power to eradicate the disease. I am disposed to believe that this remedy is a useful adjunct in the treatment of consumption, and one that has not yet had a complete trial.

M. Gannal† introduced about twenty years ago the fumigation and inhalation of chlorine gas in consumption ; it has had several warm supporters, but, strange to say, it has fallen into disuse. I have had considerable experience in fumigating remedies ; but from what I have observed, they appear suitable only in the chronic form of the disease, and where there is little or no tendency to hæmoptysis.

Iodine inhalations appear to have been used with success by Sir Charles Scudamore‡ in phthisis; but, as he very properly observes, “I never, in important cases, confine myself to the use of inhalation, but have recourse to all other things to which my judgment directs me.” This is the liberal spirit which should guide physicians in the treatment of disease. Dr. Corrigan prefers iodine

* Op cit.

J. S. Campbell, M.D., *Observations on Tuberculous Consumption*. London, 1841.

† M. Cottureau, *Arch. de Medicine*, v. xxiv.

‡ John Murray's *Treatise on Pulmonary Consumption*. London, 1832.

§ Sir Charles Scudamore on the Pathology and Treatment of Tubercular Phthisis. *Braithwaite's Retrospect*, vol. vi, July to December, 1842. p. 61.

fumigations to inhalations, and the following simple method for inhaling that substance has been recommended by Dr. Leigh. After iodine ointment has been rubbed into the chest, the heat of the body throws it into vapour, when it may be readily inhaled under the bed-clothes. Louis* is favourable to the employment of inhalations, and recommends the vapour of an infusion of hyoscyamus or belladonna to be used two or three times daily. Creosote has been employed for this purpose in phthisis, chiefly by Dr. Elliotson. I am disposed to think that inhaling vapour in consumption is chiefly useful in that stage where cavities exist ; it is then that the remedial agent is brought in close contact with the tubercles ; before that period when they are protected by membranous envelopes it is less certain ; although many volatile matters, after they have been taken into the stomach, and find their way into the blood, have eventually made their escape from it through the medium of the lungs. A variety of volatile matters have been inhaled from time to time in phthisis ; but their effects in checking the inroads of the disease have been so uncertain, that no very exalted opinion is entertained of their efficacy. That inhalation is sometimes useful cannot be denied ; from what has just been stated, however, it can only be regarded as an adjunct in the treatment of consumption. The cough and diffi-

* Op. cit., p. 538.

culty of breathing in chronic phthisis are sometimes greatly relieved by its use ; but if congestion or inflammation be present in the lungs, or if the disease assumes an acute character, its employment is likely to be attended with mischief, and must therefore be withheld.

It is by no means uncommon for attacks of hæmoptysis to follow the use of inhalations; they appear to arise chiefly from the nature of the substance inhaled, from the force with which it is inspired, from the length of time it is continued, and from the frequency of its repetition. Nausea, vomiting, and headache sometimes result from its use. To lay down any precise rules for its employment is a difficult matter, as one substance can be inhaled so much longer than another ; but no remedy requires more caution in its use than chlorine, which, even in a very diluted form, sometimes occasions great distress and irritation to the pulmonary organs. It may be stated generally, that whatever be the substance employed (provided no unfavourable symptoms are present), it may be used two or three times daily for a few minutes, taking care that inhalation be performed with no greater effort than is employed in ordinary inspiration.

That counter-irritation is a valuable adjuvant in the treatment of phthisis, is acknowledged by the profession ; a difference of opinion only existing as to the extent it is beneficial ; a variety of

means have been used for this purpose, the value of which probably differ only in degree. I am in the habit of employing one which I have found sometimes very efficacious; it is a saturated solution of iodine in naphtha, applied as frequently over the region of the disease as the cuticle desquamates; care must be taken to close the eyelids during its application, otherwise it will occasion severe smarting for some time. Dr. M. Hall states that he has employed an alcoholic lotion to the chest in phthisis with so much benefit that it has eradicated the disease. Dr. W. H. Brown* has extended this method of treating the malady, by employing a variety of lotions in the same way as Dr. Hall has done, and reports favourably of the result.

I have been induced, from the accounts published of the efficacy of Dupasquier's syrup of the protoiodide of iron, to employ it in the treatment of several cases of phthisis; in none was it attended with any appreciable benefit; in two of the cases, so rapidly did the symptoms of the disease increase, that its use was discontinued after a week's trial. The syrup was prepared by Mr. Donovan, of Dublin.

Liquor potassa† has been recommended in phthisis, in a work published by Dr. Campbell a

* W. H. Brown, M.D., a Synoptical Account of the Effects of Certain Remedies in Asthma and Consumption, on the Principle of Endosmosis. London, 1844.

† Observations on Tuberculous Consumption, &c. 1842.

few years ago ; numerous cases of recovery are reported. I have not employed it to any great extent, and, consequently, cannot speak of its value ; but the remedy coming from such respectable authority fully entitles it to a trial.

Oleum Iecoris ascelli, or cod liver oil, has of late years been recommended for its curative powers in pulmonary consumption. It has long been known in this country as a remedy for rheumatism, and is no doubt a very excellent one ; but, as Dr. Christison formerly observed in his lectures on materia medica, its disgusting taste and smell would always prevent its coming into general use. For several years past it has been largely used by the Germans in scrofula and other chronic diseases, with much success. I heard it extolled by M. Baudeloque in his scrofulous wards, at the Hopital des Enfants Malades, a few years ago, for scrofula ; at the same period, I also heard M. Emery declare in the Hopital St. Louis, that it was utterly useless in such cases ; yet these two physicians employed the same oil, as the hospitals of Paris are all under the control of government, and the medicines are supplied from a central depot. Dr. Kleuche has published several cases of phthisis which recovered under the use of this oil ; and those who desire further information on this subject cannot do better than consult Bennett's treatise.

Lately my attention has been called to a good

specimen of cod oil, manufactured by Mr. Donovan ; it is altogether a very different one to any I have ever seen before ; it is of a pale straw colour, transparent, of an agreeable smell, and of a taste strongly resembling that of oysters. I had long wished to give the cod oil a full trial in phthisis ; but I found its disgusting taste and smell an insuperable barrier to my doing so ; but now, thanks to Mr. Donovan, the difficulty is removed, and I have commenced its use in those cases in which, owing to the active nature of the disease, naphtha was contra-indicated, and in some cases I have combined the two. I have observed some benefit accrue from its employment ; but in several cases I have been obliged to abandon its use, particularly where disease of the mucous membrane of the bowels existed ; in these an uncontrollable diarrhœa set in, attended by great constitutional disturbance, which could only be allayed by suspending its use, and having recourse to opiates and other soothing treatment.

Notwithstanding it was observed by a distinguished author a few years ago,* that, “ Respecting the treatment of consumption, we must admit the humiliating truth, that there is no reason to believe the physicians of the present day more successful than their predecessors were

Sir James Clark, Bart., M.D., on the Influence of Climate, &c. London, 1830, p. 303.

ten, nay twenty, centuries ago," it is presumed enough has already been stated in the foregoing pages to lead us to hope we are no longer in this benighted condition ; and what I have further to add will prove, I trust, a realisation of that idea enunciated by the distinguished Louis, a year or two since, in the concluding sentence of the following quotation :—" I have endeavoured in the preceding chapter to appreciate at the fair value the various means which have of late risen into notice, as possessed of the greatest power of effectually influencing the course of phthisis, or even effecting its cure ; and, as we have seen, the best founded hopes in appearance have, one after another, vanished before scrutiny. This is, however, no reason that we should despair for the future, or adopt the opinion that we shall never succeed in discovering some agent or other capable of effectually opposing the onward course of phthisis once developed."

In determining the best prophylactic measures for phthisis, it may be observed that, for the establishment of a healthy and vigorous constitution, the human germ should be perfect ; and that the new being should live in accordance with certain organic laws. But even where the consumptive diathesis is propagated from the parent to the child, much may be done by well-timed and judicious training. If the defect cannot be entirely removed, it may at least be held

in such abeyance, that, under favourable circumstances, and good management, fair health and old age may be attained. The power of resisting cold is at its minimum at birth; hence at this period warm air, warm clothing, and warm food, are essential for the well-being of the child; and the infringement or neglect of such rules leads to great mortality in infants. Many diseases of infancy, it is true, are developed independently of cold; but disorders of the bowels, convulsions, and inflammations, frequently originate in early childhood, from the want of suitable protection by clothing and from imprudent exposure to cold air. This was exemplified in France a few years ago, by the enormous sacrifice of human life, in consequence of children being taken to the Mayor for registration shortly after birth; since the abrogation of that law the mortality has greatly diminished. The contrary extreme must be avoided, the clothing must not be so great as to produce that relaxation of the skin which enfeebles the system, and renders it liable to those diseases which a moderate degree of clothing and suitable temperature prevent. The residue of the insensible perspiration which is deposited on the skin, should be daily removed by ablution; were this matter allowed to accumulate, the pores of the skin would be obstructed, and additional labour thrown upon the internal organs, which, if not immediately creating disease, would

at least give a tendency to it. The clothes should be frequently changed, as they absorb great quantities of this fluid, and occasion irritation of the skin, which often terminates in cutaneous diseases.

Every one, at the present day, is acquainted with the value of pure air in the prevention of disease; and as infants have a less power to resist the inroads of the latter than at a more advanced age, so is the former more essential to the preservation of their health than it is in youth, manhood, or even old age. The milk of a consumptive female can hardly be expected, even if it does not contain elements of the disease, to be very nutritious; consequently her child should be suckled by a young and healthy nurse until it reaches the age of nine or twelve months. It should be reared in the country; and, after weaning, a nutritious diet ought to be enforced. Animal food should be given once a day; to begin with, a little chicken broth or beef tea, with or without arrow-root, rice, or bread; which in a short time may be substituted for the lean of a mutton chop, or a little chicken.

A moderate quantity of pudding may be taken, composed of sago, rice, tapioca, or bread; the morning and evening meal should be bread and milk, with a little bread and butter; at this period, the child requires five meals a day, which ought to be taken at regular times; it

should be carried into the open air twice a day, for an hour or two, when the weather permits. The bowels ought to be carefully attended to, and, if possible, regulated without the aid of medicine, which can generally be done by a little judicious management of the diet ; this must be particularly attended to during the period of dentition. Walking ought not to be commenced too early, otherwise the child will be weakened by its ineffectual efforts to support itself or maintain its equilibrium, and will also be liable to distortion of the legs and other parts. The fifteenth month will be sufficiently early to put the child on its feet ; and not even then, if it be very stout. The sleeping apartment should be airy, and not used as a sitting-room during the day. I am persuaded, that forcing the intellect of children occasions great mischief to their health, although it be done in the gentlest manner. This remark has particular reference to scrofulous and rickety children, whose brains are often largely developed and much disposed to mental activity, which latter enfeebles the weak condition of the other organs of the body, and, instead of being checked by parents, is fostered in every possible way, to the exclusion of all those means which have an invigorating influence upon the frame ; and thus creates a premature decay. Education should not be commenced before the fourth or fifth year, and then

only of that nature sufficient to call forth the slightest mental efforts; this should be pursued at home, under the guidance of a person possessing good plain sense. The child would then escape the impure atmosphere of the crowded class-room, and the restraints generally imposed there, which sometimes occasion spinal distortions, and undermine weakly constitutions.

The age of puberty is a very important one in both sexes, and the more so in those who are predisposed to consumption, as phthisis not unfrequently manifests itself at this epoch, when a remarkable change is observed to take place in the physical organization. It is the great period of growth; consequently, at this time a larger amount of nourishment is required than at any other. In order that the body be naturally and fully developed at puberty, the brain must not be over exercised—in a word, there must be an absence of everything that tends to enervate the body—or some defect in the organization will ensue, predisposing to consumption. Those occupations which involve fatigue and additional labour to the lungs must be studiously avoided—such as singing loud and public speaking, and the cultivation of wind instruments—from which causes I have repeatedly traced the more active march of the disease.

Before adult age, the business of life has to be chosen, which ought to be of such a nature that

active duties preponderate over sedentary ones. It should be sufficient to stimulate the mind to wholesome exertion, and conducted in a healthy situation ; neither exposed to the inclemencies of the weather, nor the foul air of crowded and confined apartments. It is difficult to point out a trade or profession which combines all these advantages, but there are some much more suitable for constitutions disposed to consumption than others.

On this subject, M. Lombard has furnished some interesting statistical details. Among those persons engaged in the different professions at Geneva, 114 fell victims to consumption out of 1000. The average varies ; in some professions it is higher than others ; in the varnish painters it is as high as 37 in the 100, in the gardeners it is as low as 4. Among polishers, plasterers, sculptors, stone-cutters, watch-hand-makers, it reaches to 117 in the 1000 ; and among tailors, engravers, printers, clerks, &c., even to 141 in the 1000. The average falls in carpenters, blacksmiths, slaters, and agriculturists, to 89 in the 1000 ; in butchers, tanners, and candle-makers, to 73 in the 1000 ; in weavers, dyers, bleachers, and watermen, to 53 in the 1000 ; and in persons in easy circumstances, it falls as low as 50 in the 1000. M. Lombard found that the age of the stone-cutter averaged 34 years, the sculptor 36, the miller 42, the painter 44, the joiner 49, the

butcher 53, the lawyer 51, the surgeon 54, the mason 55, the gardener 60, the merchant 62, the Protestant clergyman 63, the magistrate 69.

The following observations are important to those who are considered to be liable to phthisis :

In order that the blood may undergo a suitable purification, to fit it for the uses of the body, it is essential that the atmospherical air be pure ; for if it be deficient in oxygen, and holds carbonic acid and other noxious matters in excess, it will sooner or later enfeeble the constitution, and be productive of phthisis.

Without due attention be paid to diet, healthy digestion is hardly to be expected. If more or less food be used than is necessary, or that which is taken be imperfectly digested, if the hours appointed for meals be irregular or unnatural, or the food be inferior in quality, the chyle is deteriorated, and the blood becomes unfit to support the different organs in the just performance of their natural functions, which gives rise to increased, diminished, or perverted actions, terminating in disease. A generous and well regulated system of diet is of high importance in such a constitution ; it supplies the body with that amount of nourishment which protects it from debility and depression, so frequently observed in those threatened with consumption.

The circulation requires frequent and careful

attention; all irregularities must be promptly treated; cold feet, with alternate flushings and chills of different parts, require to be counteracted promptly by judicious management. This unhealthy state shows at once an unequal distribution of blood, which loads one organ by impoverishing another, and leads eventually to disease.

The brain and nervous system must be kept in a state of repose, in order to maintain perfect health; a due proportion of sleep, and an absence of mental excitement, tend to preserve this desirable condition.

The important office the skin fulfils in the animal economy requires especially to be noticed. It can readily be shown that it possesses a vast compensating power for some, if not all, the secreting organs of the body; it is, in fact, an additional outlet or safety valve for the escape of various matters when the secretions have sustained a check; this is more obvious in the kidney than any other organ. Cold applied to the surface of the body contracts and empties the cutaneous vessels, and loads the internal organs with blood,—the weakest only suffering, or suffering most,—occasioning catarrh, diarrhœa, and other maladies. It has been observed, that persons who entirely neglect the ordinary modes of cleanliness frequently suffer from diarrhœa, and the most obstinate cases have been cured by sponging the body with water every twenty-four hours,

and making at the same time good use of the flesh brush.*

Abernethy, and more recently Campbell, † have proved by experiment that the skin absorbs oxygen, and throws off carbonic acid gas and water—a function similar to that performed by the lungs. It is, therefore, an imperative duty to inculcate cleanliness, so desirable at all times, but much more so in one who has a tendency to phthisis, that the dry scurf and other matter which obstruct exhalation may be removed from the surface of the body.

Violent and long continued exercise is injurious; but exercise in moderation is highly beneficial to those who have a predisposition to consumption.

From what has been stated relative to the skin, the mode of clothing is one demanding serious consideration. There is often a tendency to chilliness in phthisical subjects; hence articles of dress which are bad conductors of heat will be found highly valuable; at the same time the dress must not be so warm as to produce relaxation, and enervate the body. Flannel should be worn next the skin, and the legs covered with woollen stockings, unless the patient is inhabiting a climate where the temperature is higher and less

* The Principles of Physiology applied to the Preservation of Health, &c., by Andrew Combe, M.D., p. 96. 1836.

† Observations on Tuberculous Consumption, &c., by J. S. Campbell, M.D. 1842.

changeable than that of England. The linen and flannel worn next the skin ought to be frequently changed, and that part of the dress which is not of a washing kind should often be placed before a good fire, in order to dissipate any noxious matter imbibed from the body.

In females the chest should be well covered, and the stays loose, which should be especially attended to by those who have the care of young persons, that they may not in any way impede free respiration.* The use of waterproof clothing is highly objectionable, as it prevents the escape of matter exhaled from the skin, and thereby involves the lungs in unnecessary labour; a sheltered situation should be selected, the centre of large towns and cities, and north and north eastern aspects must be avoided; England affords an abundance of suitable spots where the consumptive might pass the winter and spring with advantage. Among these may be enumerated Hastings, the Isle of Wight, Torquay, Sidmouth, Clifton, &c.; and where a milder and less variable climate is desirable, Madeira is the best that can be selected.

The habitation should have a southern aspect; the apartments should be lofty, of a capacious size, and freely ventilated, especially that used as a sleeping room, which should be warmed by a

* Thackrah on Employment, as affecting Health and Longevity, p. 95.

fire or other means during the autumn, winter, and spring, so that no risk of being chilled on retiring to bed, or in rising in the morning, be incurred. The bed should comprise a soft mattress, resting on a feather-bed, and be well exposed to the air during the day. The hours of rest should always exceed those usually taken by persons in health.

It is now a year and a half ago since the first edition of this work appeared, containing my experience of the employment of *naphtha* in consumption. During a period of nine months the result was so encouraging, that I hastened to lay the facts before the profession, in order that the usefulness and value of this remedy might be more fully tested. The additional facts and observations contained in the present volume, it is hoped, will not be read without interest; they are selected from an extensive practice; I have also added cases treated by other medical men.

There is undoubtedly a fashion in physic. Within these few years the bleeding system has passed away; the indiscriminate use of mercurials has been abandoned; and the monstrous quantity of medicine prescribed a quarter of a century ago discontinued. But no such changes have been witnessed in what is called the specific treatment of disease; the action of sulphur, mercury, quinine, and arsenic, is demonstrated with

too much certainty in psora, syphilis, and intermittent fever, to be doubted; and the only prospect of displacing these therapeutical agents from the high position they occupy in the *materia medica*, is by the discovery of others still more efficacious for curing these diseases. Their remedial powers are quite surprising when the uncertainty which surrounds the treatment of many diseases is taken into consideration. It is true recoveries from a variety of affections take place under the employment of remedial agents; but would they not occur in many instances as readily without them? Or why is the stimulating plan of one practitioner, and the depressing of another, equally successful in the same disease? I recollect witnessing the treatment of fever in the Royal Infirmary of Edinburgh, by two of its most talented physicians; one adopted the ultra-stimulating method, the other the most rigid antiphlogistic measures; yet their success was about equal, and would perhaps have not been much less had medical aid been withheld altogether. During the prevalence of the cholera in 1832, medical men of large districts were, in some instances, so much engaged, that some of their cases went wholly unattended. This happened in more than one of the remote districts of Scotland; nevertheless, recoveries were not uncommon among the neglected patients. But this will appear the less astonishing when the variety

of treatment is recalled which was adopted in the disease ; each method claiming a certain amount of success, equal to that perhaps realised among the non-attended cases in Scotland. These are, no doubt, some of the many causes producing revolutions in the treatment of disease, and which foster those novelties and crude systems from time to time introduced into the practice of medicine. But in avoiding Scylla, Charybdis must be looked to ; and if we cannot explain the actions of remedies, we ought not to deny both their existence and usefulness. I have no intention, however, of placing this remedy in juxtaposition with sulphur, mercury, quinine, or arsenic ; its remedial agency in phthisis is less uniform than theirs in psora, syphilis, and ague ; nevertheless the valuable results obtained from its employment in that disease far excel those from any other means yet adopted ; and I may here add that it possesses a power of healing scrofulous ulceration, I believe, peculiar to itself.

The constitutional treatment of disease is one of the most interesting subjects that can engage the mind of the medical philosopher. It affords an extensive field for exercising the abilities of the skilful and intelligent practitioner ; but, in the purely specific affection, something more subtle and sure than constitutional treatment seems to be necessary. What has it done for small-pox,

measles, scarlet fever, cancer, and many of the cutaneous diseases?

On the other hand, vaccination has been found a specific for the prevention of small-pox, and belladonna for scarlet fever; they do not certainly afford protection in every case, but they so generally do so, that, upon the whole, they are fully entitled to the appellation of specific, if such a term is admissible at all in medicine.

No disease in proportion to its frequency has excited so much attention as hydrophobia;* nevertheless constitutional treatment has done nothing for it, even in the way of alleviation. This, and other diseases now incurable, will no doubt be eventually treated with success, when an institution is established for their especial reception, in which every product of nature and art is employed for the purpose.

Cases of the successful, but more frequently unsuccessful, treatment of consumption by pyroacetic-spirit have occasionally appeared during the last eighteen months in several of the medical journals of the day. That the authors of the latter have been less fortunate than those of the former, is chiefly owing to unpardonable carelessness.

* I cannot help expressing my surprise that no writer has yet recommended strychnia in hydrophobia. It is true this agent seems chiefly to exert its influence upon the nerves of motion, and the disease upon those of sensation; but, notwithstanding this difference, I think it fully entitled to a trial.

Instead of making themselves acquainted with the peculiar properties of the remedy, and selecting those cases for which it was adapted, they commenced its use merely from hearing it casually spoken of as a new one. How is it to be expected that success could follow such a loose method of practice?—and yet some of these persons have, without making further inquiries, not only decried this agent as useless in phthisis, but absolutely injurious. It is hardly to be credited that an experienced practitioner, without ascertaining the nature of the remedy, would employ it in consumption of an inflammatory character, or when it is attended with severe hæmoptysis, and persevere in its use although evidently doing mischief.

In the treatment of the disease under consideration by naphtha, medical men generally, it appears, have been less successful than myself; this apparently has arisen from one or all of the following causes, to which too much attention cannot be given:—

First—From a deleterious agent being employed for a medicinal one.

Second—From its use in cases in which it was contra-indicated.

Third—From patients being treated in unfavourable situations.

It could hardly be expected that a compound

fluid, known as a medicinal agent only the other day, differing but little *chemically* from alcohol and æther, bearing a name common to several others which it somewhat resembled, should have its distinguishing character so pronounced that it could be recognised with as much certainty as a solution of ammonia.

Although I mentioned, in the first edition of this book, several tests for the recognition of medicinal naphtha, cases are constantly occurring in which oily, milky, and coal tar naphtha, are administered, and most prejudicial results ensue. Without further inquiry, I have been unjustly made responsible for these flagrant acts of carelessness, from which conclusions have been drawn prejudicial to the character of the treatment. Hence practitioners cannot be too strongly impressed with the paramount necessity of taking especial care that a spurious agent is not employed for a medicinal one. There are, I am aware, several products of coal tar in the market, so prepared that all the oily matter is removed, which produced the turbid and milky appearance when mixed with water—noticed in the former edition; consequently this test, which was so much relied on then, is now greatly lessened in value. Nevertheless this description of naphtha is readily known from the medicinal preparation, by the pungency of its taste, and its disagreeable and more powerful odour.

Dr. Hocken* states in his treatise on this subject, "The most ready test is therefore to be found in litmus paper, which is reddened by the non-medicinal, but is unaffected by the medicinal."

The importance of these remarks on the distinguishing characters of these substances, may perhaps be enhanced by the recital of two or three cases illustrative of the pernicious effects of spurious or non-medicinal naphtha.

CASE II.

Miss ———, residing at Norwood, suffering from phthisis, had been under the care of two metropolitan practitioners for some months. As she gradually became worse, her *father* hinted to the medical attendants his wish that the naphtha treatment should be tried upon his daughter; this proposition at first was scouted; but eventually, on his repeating the wish, they consented, and brought a bottle of naphtha from town. Upon a dose being administered to the patient, it produced such excessive vomiting and other bad symptoms, that its use was immediately discontinued, and the *father* admitted the justness of their condemnation of this agent. Two or three months afterwards the *father*, being in the shop of

* A Practical Inquiry into the Value of Medicinal Naphtha in Tubercular Phthisis, by E. O. Hocken, M.D. London, Highley, 1844.

Messrs. Allen and Co., Plough Court, Lombard Street, was surprised, on mentioning these facts, to learn that such effects were very uncommon from the use of the medicinal article, and although he considered his daughter in a dying state, bought some, and upon his return home administered a dose, which, unlike the first, that produced the train of bad symptoms, gave her so much relief that she begged a continuance of its use. I was requested to see her a day or two afterwards, and the remains of the phial of naphtha, which had been supplied by her medical attendants, was put into my hands; on pouring a few drops into a little water, it became very milky, and its odour was also excessively disgusting; these characters the *father* had discovered the day before, on comparing it with that procured from the city.

Mr. Blanch, a surgeon in Camberwell, who had extensively used this treatment in phthisis, informed me, that having prescribed it for a patient, was surprised to find it caused sickness with an increase of all the pulmonary symptoms; being unaccustomed to observe such effects from its use, he was led to inquire where the prescription had been prepared, and upon finding it had been put up by a chemist he was unacquainted with, directed the patient to send the same prescription to another who was remarkable for the purity of his drugs; the consequence was, that a vast im-

provement speedily took place, the patient recognising also a great difference in the taste of the medicine.

CASE III.

Mr. Jones, residing in the vicinity of London, placed himself under my care on July the 3rd, 1844, by the desire of Mr. Girdlestone, a surgeon of Southampton, who considered his case hopeless. He was born of a consumptive family, had cough for the last eighteen months, accompanied by very great expectoration, which was occasionally streaked with blood; his breathing was difficult, and nocturnal perspirations were profuse; had wasted excessively, appetite deficient, bowels irregular, pulse 116. He had had two severe attacks of hæmoptysis. Upon inspection of the chest, expansion was deficient on both sides, but more particularly below the left clavicle, where percussion elicited a dull sound, and the respiratory murmur was tubular. On the right the sound on percussion was by no means clear, and the respiratory murmur was bronchial, with loud and prolonged expiration; bronchophony was present on both sides. His sleep was restless, even under the influence of morphia, which he continually had recourse to; his weight was 7st. 9lbs., when the treatment was commenced. This patient had great dread, and consequently great reluctance, to put himself

under the naphtha treatment; having heard that it had not only signally failed, but had proved highly injurious in many cases treated at the Hospital for Consumption at Chelsea; and it was not until Mr. Girdlestone assured him of its beneficial effects on himself and some of his patients, that he consented to place himself under my care. At the end of twenty days, having taken the following medicine, he was much improved; he had abandoned the morphia, sleeping now better without it than he formerly did with it:—

R Naph. rectific., 3 viss;
 Vini. colchici, 3 iss;
 Aq. destill., 3 j; M. Fiant. gutt. sumat.,
 minima. xxx. ter in die, ex æquâ.

The following was the result of an examination, made for the purpose of ascertaining the capacity of the lungs for air, by Hutchinson's breath-meter:—

Pulse, 100; number of respirations per minute, 30; height, 5ft. 5½in.; weight, 7st. 10lbs.; cubic inches of air by a full respiration, 129; temperature, 64.

His improvement progressed steadily up to the fiftieth day, with the exception that he took cold once, which produced bronchitis, and for a few days his cough and expectoration increased; he had also an attack of dyspepsia, attended with pyrosis, which the following pills relieved:—

R Bismuthi trisnitratis, 3j.
 Extracti gentianæ, 3 ss. M. Fiant. pil. xij.
 capiat æger unam horâ unâ ante prandium.

combined with counter-irritation over the pit of the stomach, which was also applied to the left upper region of the chest. At the end of the seventy-third day, his cough and expectoration had considerably diminished, his appetite was excellent, and he had become much stronger. The following was the result of the examination:—

Pulse, 92 ; number of respirations per minute, 20 ; height, 5ft. 5½in. ; weight, 7st. 11½lbs. ; cubic inches of air by a full respiration, 140 ; temperature, 65.

He informed me that his former medical attendant in the country was surprised at his improvement, particularly as he had employed the naphtha treatment in several cases unsuccessfully. My patient suggested that he had not used the proper agent, but the medical man assured him to the contrary. Shortly afterwards, my patient being without medicine, and not being convenient for him to procure it immediately from London, begged his late medical attendant to prepare his naphtha prescription, and when about taking the first dose, he found the smell so odious, and the taste so disgusting, that he determined to remain without medicine, rather than take it. The medical man assured him it was what Dr. Hastings recommended, and urged him to commence its use ; instead of doing so, he brought it to London for examination, and it proved to be one of the oily deleterious

naphthas, which I had several times met with before.

April 2nd, 1845.—Mr. Jones's health continues to improve. His cough and expectoration are very trifling, and his weight has augmented to 8st. 2lbs.

A considerable difficulty arose, in consequence of the secrecy the chemists observed relative to the source whence they procured their supply ; as to whether the fluid was obtained from wood, or by the dry distillation of an acetate. For the solution of this mystery, I am indebted to the kindness of Mr. John Barry, of the firm of Allen and Co., Plough Court, Lombard Street, who determined to investigate the subject. Mr. Barry distilled a naphtha from the acetate of lead, and then, by a series of experiments on this and all other naphthas to be found in the market, proved, beyond doubt, that it differed considerably from that in ordinary use. More recently it has been ascertained, by the admission of several chemists, that it had been obtained from pyroligneous acid manufactories, where beechwood alone was consumed in its production.

From several communications I have had with professional men on the continent, it appears they have generally used the spirit procured from acetates by dry distillation.

Great discrimination is necessary in the se-

lection of cases to be treated with this agent ; its employment in unfavourable cases is a frequent source of failure.

The physiological action of this fluid is stimulating ; it excites the action of the heart, exalts the powers of the nervous system, and invigorates the organs of digestion. Nevertheless, the frequency of the pulse often diminishes during its use, and this in proportion as the pulmonary symptoms give way, from its stimulating qualities being less exciting to the heart than the irritation set up by the disease. Phthisis is certainly, in its uncomplicated state, a non-inflammatory affection ; many individuals of nice observation and great talent hold a contrary doctrine, believing it due always to inflammation, whether we can detect its presence or not, alleging that inflammation often exists in different organs of the body without exhibiting any of its ordinary symptoms. However true this is in some cases, it cannot be maintained in inflammation of the lungs, which is now ascertained with the greatest precision, through the medium of auscultation and percussion. M. Fournet* has observed, that when pneumonia attacks only the central portion of the lung, although all the other symptoms

* Jules Fournet, *Clinical Researches on Auscultation of the Respiratory Organs, and on the First Stage of Pulmonary Phthisis*. Paris, 1839. Translated by J. Brady, M.B. Part I., 1841.

may be present, there is sometimes an absence of crepitation, which tends to mystify the nature of the disease ; but in such cases, when puerile or exaggerated respiration is observed in any portion of the pulmonary organs, we are warranted in diagnosing inflammation of the lungs.

I believe, with M. Laennec and M. Grisolle, that the inflammation in question is generally owing to irritation set up by the tubercles themselves. In ninety-nine cases out of a hundred, phthisis proceeds from the apex towards the base ; inflammation, on the contrary, from the base to the apex. Phthisis is rarely observed to follow inflammation ; and the latter more commonly attacks men, the former women. The intercurrent inflammation met with in phthisis frequently depends, I believe, on large quantities of tubercles suddenly deposited in the lungs, and also on the rapidity with which they progress from one stage to another. When the crop is large, and rapidly deposited, interference must arise to the healthy performance of the function of respiration, from there being less lung to decarbonize the blood than there was before the morbid product existed ; thus the healthy portion of lung will necessarily have a greater amount of labour to perform, and, as a consequence, will at all times be predisposed to take on inflammatory action from slight causes, being

continually over-stimulated. Whilst, on the contrary, when the crop is small and slowly generated, the lungs accommodate themselves to the foreign body ; and it often happens, that until the disease has made great inroads into the pulmonary tissue, the constitutional powers do not manifest any striking departure from health. This will account, in some degree, for the existence of inflammation in one case, and its absence in another ; although there are other causes, no doubt, which sometimes induce inflammation in phthisical lungs—such as variations of temperature—independently of tubercles themselves.

From these observations, it will readily be seen that the less phthisis is complicated with other affections, the more suitable it is for this treatment ; where the pulse is at the ordinary standard, or thereabouts, where the hectic is slight, laryngeal and peritoneal disease absent, the functions of the stomach and bowels not much impaired, the constitutional disturbance inconsiderable, and the physical signs denoting only a slight deposit of tubercles in one lung, the prognosis is favourable, and a speedy recovery may be anticipated.

In many cases, this mild character of the disease is never witnessed, however early they may be seen ; at the same time, for want of close observance, this period frequently altogether escapes notice ; hence success often depends upon an

early diagnosis of the disease. If naphtha is employed in acute phthisis, where the cough is very harassing, with slight frothy expectoration, respirations thirty to forty per minute, pulse a hundred and twenty to a hundred and forty, hot skin, profuse night sweats, great thirst, appetite deficient or altogether wanting, and the physical signs denoting an extensive crop of tubercles in both lungs, it will be found injurious rather than beneficial. If it is employed in chronic phthisis, co-existing with disease of other organs, its value is diminished in proportion to the extent of the complications and their vitiating influence on the constitutional powers; if it is continued in certain cases where improvement had followed its use, after the appearance of intercurrent pneumonia, bronchitis, or pleurisy, it will do great mischief. Many such cases give way to a short course of treatment with antimony, digitalis, &c., and then the pyro-acetic spirit may be again employed with the greatest advantage. The following cases will illustrate the foregoing opinions:—

CASE IV.

John Davis, a horse clipper, ætat. 34 years, residing at 25, John Street, Edgeware Road, was admitted under my care at the Blenheim Street Free Dispensary, Sept. 22nd, 1843. He was born

of a healthy family, had been a free liver, but always enjoyed good health until the last two years, when, apparently from cold, a dry cough came on, which, after some time, was followed by expectoration. During the last twelve months it had increased, accompanied by night sweats, difficulty of breathing, and great wasting, and although he had been continually receiving medical aid, he continued to grow worse; percussion yielded a dull sound generally, which was particularly marked below the right clavicle, where pectoriloquy and a cavernous rale were distinct over a small space; pulse 96; appetite deficient; bowels irregular, alternating from confinement to relaxation.

Rx Naphthæ rectific. M. xx., ter in die ex aquâ.

After taking the medicine for a short time, he rapidly improved in all his symptoms, and was enabled to return to his employment, when, from cold or some other cause, severe bronchitis set in, and although desirous of persevering with his favourite medicine, he continued to grow worse, until at length he was put under the influence of tartar emetic for a week, when the intercurrent bronchitis gave way, and he again resumed his former treatment. He continued paying me occasional visits for about nine months, in the course of which period he had three attacks similar to the one described; and although at the commencement of each he persevered in the use of

naphtha, he was always obliged to relinquish it, owing to its making him worse, and have recourse to the tartarised antimony, which invariably subdued the inflammatory character of the disease, when he again resumed the use of naphtha. Under this system he regained health and strength, weighing between two and three stone more than he did at the commencement of the treatment; the physical signs had undergone remarkable changes, neither pectoriloquy or cavernous rale were to be found below the right clavicle, but bronchophony and coarse respiration occupied its place, with less dulness on percussion than existed at the commencement of the treatment. He continues well.

CASE V.

Frederick Anderson, ætat. 19, born in London, of healthy parents, was admitted under my care at the Blenheim Street Free Dispensary, Feb. 16th, 1844; he resided at 23, Plough Court, and was a printer on the "Lancet;" he always enjoyed good health until the last few months, with the exception of a dry cough, which he had suffered from for the last year. A month ago he had an attack of hæmoptysis; his cough was severe, accompanied with expectoration; breathing difficult; severe night perspirations, with loss of flesh and strength; pulse ninety-two; expansion

deficient over the left side; percussion dull over both upper regions, particularly the left, where there was feeble respiratory murmur, with jerking expiration.

R Naphthæ rectific, ʒ ss;

Vini col., ʒj. M. Fiant. gutt. m. xx. ter in die ex aquâ.

He took the above drops, and had counter-irritation applied to the upper and anterior parts of the chest. After a month's treatment, his cough, expectoration, and difficulty of breathing had almost disappeared; the perspirations had entirely ceased; when he appeared to take cold: all his former symptoms returned in an aggravated degree, and, added to the physical signs described, was a fine crepitation, perceptible during inspiration only below the left clavicle; the symptoms appeared to augment under the use of this treatment, which was laid aside, and one composed of a solution of tartar emetic and digitalis substituted; this, in the course of a week, subdued the inflammation in the left lung, when the naphtha drops were again taken; and after persisting in their use for another month the patient reported himself well. Some dulness was perceptible on percussion; the jerking expiratory murmur had disappeared; and the respiratory murmur was of a much more healthy character.

I could multiply these examples; but those related are sufficient to put the practitioner on his guard where acute bronchitis or pneumonia

appear in the course of the treatment without an apparent cause.

Where hæmoptysis is present, or where it has recently existed, naphtha is generally contra-indicated. When this is associated with tuberculous disease, as it commonly is, if it does not denote an inflammatory condition of the lung in the immediate neighbourhood whence it issues, it certainly characterises a congested state of the vessels of the part, in which state the use of all stimulants is ordinarily forbidden; although, where considerable evidence of congestion has existed, naphtha sometimes acted most beneficially. I have seen it reduce the pulse forty beats per minute, in the first forty-eight hours of its use. However, in all cases of decided spitting of blood, it will be better to wait until this latter has subsided a few days before the medicine is employed; and then ought to be combined with the tincture of digitalis, if the pulse is frequent, and other signs of high inflammatory action exist.

There is a class of non-complicated cases which I have found very difficult to manage, and suspected to be of the nature of tuberculous infiltration; but, unfortunately, I have had no opportunity of inspecting a case of this kind after death.

It is observed in such cases that, on whichever side the deposit principally exists, a remarkable dull wooden sound results from percussion, with

great sense of resistance. About the circumference of the dull space coarse bronchial respiration is perceptible. In the centre the respiratory murmur is totally absent; and here the heart sounds and vocal resonance are heard with great intensity. So much dulness from percussion is rarely met with from a deposit of tuberculous granulations. The morbid matter must indeed be thickly studded in the lungs to close so completely, and to such an extent, the air cells and smaller bronchi as shown by the total absence of the respiratory murmur over a considerable space. Some of these cases are benefited for a time by the use of naphtha, and then end fatally. The following will illustrate this class:—

CASE VI.

Master A., ætat. 11 years, of a consumptive family, was placed under my care August the 11th, 1843. He was somewhat emaciated; had suffered for some time with cough and expectoration; had difficulty of breathing, with occasional night sweats. Expansion was deficient on the left side, where, to the extent of two square inches, percussion elicited a dull wooden sound, with great sense of resistance. Around the circumference of this space, the respiratory murmur was noisy; within the space it was wholly inaudible. For about three months some improvement in the general symptoms took place, the disease

seeming to be held in abeyance ; but in the course of three or four months, the patient having gradually lost ground, softening commenced in the dull space, accompanied by severe night sweats, wasting, rigors, diarrhœa, and loss of appetite.

Of all the complications of phthisis, none are more unmanageable than ulcerations of the epiglottis, larynx, and trachea. These are sometimes relieved by the application of leeches, mustard cataplasms, and warm fomentations, to the neighbourhood of the disease ; and internally by sedative inhalations, such as hyoscyamus and conium. Tuberculous affections of the brain admit of but little relief, and in the acute form usually terminate from the eighth to the sixteenth day. Perforation of the lung is another affection over which treatment has but little influence. Louis regards it in all cases as speedily fatal ; but I may add my humble testimony to that of Drs. Stokes, Barlow, and Houghton, that it is not constantly so ; for I have at this time a young medical man under my care, with perforation of the upper lobe of the left lung, manifested by metallic tinkling, and above the situation where this is heard with the greatest intensity percussion yields an unnaturally clear sound, with total absence of vocal or tussive resonance. These symptoms were present when I was requested to see him ten months ago, and I may add he is now comparatively in a comfortable state.

When diarrhœa is conjoined to phthisis, it quickly disappears under the use of naphtha, if it results from an enfeebled state of the system ; but if it arises from lesions of the mucous membrane of the stomach and bowels, it should be combined with morphia and conium. When complicated with disease of the heart, with or without hypertrophy, or valvular disease producing violent and irregular contraction of that organ, its use may be continued with advantage, combined with iodide of potass, hydrocyanic acid, or wine of colchicum.

When complicated with dyspepsia, little or no benefit will accrue from its use until that affection is removed. If much pain is felt at the scrobiculis cordis, on moderate pressure, or after meals, with a sensation of fulness and distension, accompanied by flatulence, nausea, and occasional vomiting, and red tongue, with rather prominent papillæ, counter-irritation will be found useful applied over the painful region, either by croton oil, tartar emetic, or mustard poultices : and leeches in some instances may be found necessary. Internally, hydrocyanic acid with distilled water, or infusion of quassia, will be found serviceable ; the bowels must be regulated, and easily digested food ought to be taken, with but little fluid of any kind. Should the dyspepsia be associated with pyrosis, the hydrocyanic acid and infusion of quassia may be replaced by the

trisnitrate of bismuth, made into pills with the extract of gentian, or a little blue pill may be added if the function of the liver is torpid. Where acid eructations are troublesome, liquor potassæ or some of the alkaline salts will be indicated. When the dyspepsia is accompanied by a languid state of the system, with little or no fever, small doses of strychnia will be found extremely useful. In all the protean forms in which dyspepsia manifests itself, great care and attention must be paid to the regulation of the diet and bowels, otherwise the treatment will be of little avail.

With regard to the third source of failure, viz., the situation or dwelling of the patient whilst under treatment, trivial as it may appear at the first glance, it will be found on further inquiry to involve considerations of the deepest interest to the patient and practitioner. From facts which I shall presently state, it will appear that hospitals, as at present constructed, are very unfavourable for the recovery or improvement of patients labouring under consumption ; nor is it to be wondered at, when we recollect, that diseases ordinarily remediable, are still more so when treated in a pure atmosphere ; and that scrofulous affections, and diseases engrafted on strumous constitutions, are not very amenable to any treatment in hospitals, especially when situated in confined and densely populated districts ; cases of

this description which terminate in death, do so in a much shorter time than at their own homes, unaided by medical assistance of any kind; and most of them, if carefully examined, would exhibit lesions of the lungs of a tuberculous nature; out of these facts have grown infirmaries at Margate and elsewhere, for the special treatment of this class of diseases.

I was led to the investigation of this part of the subject, from the utility of the treatment being denied by several physicians, who had employed it in hospitals; I was satisfied on one of these occasions, at least, that medicinal naphtha had been used, which made me extremely anxious to witness its effects myself under these circumstances, in order, if possible, to ascertain the cause of failure; but I may here add, that I have letters from more than one hospital physician, bearing testimony to its great value in phthisis.

An opportunity soon presented itself: a physician to one of the metropolitan institutions, alike remarkable for his benevolence, liberality, and intelligence, permitted the naphtha treatment to be tested in the hospital to which he was attached; the group of cases treated amounted to about a dozen, and furnished specimens of the disease in all its stages; severe head-ache, with only one or two exceptions, followed its exhibition, which was often so excessive, that it was obliged to be abandoned after a few doses only

had been taken ; in one or two cases, besides the head-ache, some of the phthisical symptoms, such as cough, expectoration, and difficulty of breathing, were augmented. In a patient who was labouring under the disease in its first stage, although the naphtha was withheld once or twice, in consequence of excitement and head-ache, it was eventually borne, and the patient improved considerably under its use, but was lost sight of, through his leaving the hospital ; he promised to continue an out-patient,—which he failed to do,—in order that the progress of the disease might have been watched.

In another case, having excavations in the upper part of both lungs, in which no marked untoward symptom followed its use, the cough and expectoration considerably diminished, whilst the appetite increased and the patient gained flesh ; his pulse were always considerably accelerated—a very rare symptom in cases in which improvement is effected.

Such was the result of the trials which took place in the hospital under my eye ; although the number of cases experimented on was small, it was sufficient to show that some cause existed, which in a great measure checked the benign influence of the medicine ; head-ache, so constant in the hospital cases, was an uncommon symptom in patients treated at their own homes,

and, when this set in, it was usually followed by an increase of cough, expectoration, and fever, with an accelerated pulse ; it is true, out of the cases one did well, and another, a hopeless case, was considerably relieved ; but this is an amount of success very far below that which is met with in private or dispensary practice.

To what, then, are we to attribute these untoward effects ? Is it to want of exercise, or to confinement ; or does it arise from a deterioration the air undergoes in the wards of hospitals, through the unhealthy exhalations which are constantly exuding from the bodies of other patients with whom the consumptive are compelled to live ? Probably it is owing to all these causes, otherwise it might reasonably be expected, that the well regulated system of nourishing diet, cleanliness, and orderly habits, enforced in these institutions, would ensure that success to the medical treatment unattainable elsewhere. The hospital in which these observations were made does not stand in a very airy situation ; nevertheless the deaths occurring within its walls are as few in proportion to the number of its inmates as in any other hospital in the metropolis.*

* I perceive, by the last number of the Edinburgh Medical and Surgical Journal, April 1, 1845, that Dr. John Hughes Bennett has employed naphtha in the treatment of phthisis in the Royal Infirmary of Edinburgh, with great benefit.

Since the publication of the former edition of this work, I have had excellent opportunities for studying tubercular phthisis in all its stages. Cases in the latter stage of the disease, in proportion to those of the former, have been far more frequent in my practice than they were prior to the appearance of the first edition of this treatise.

In those cases where tubercles have not reached the stage of maturation, the disease is frequently remediable, as fully shown in many cases treated by myself and others; the following are examples, and the reader is requested to observe, that they were diagnosed cases of phthisis by eminent physicians, before I was called in to treat them. Mr. Seabrook, ætat. 31, the subject of the following case, is steward to Her Royal Highness the Duchess of Kent; he has very liberally given me the following statement for any use I might wish to make of it:—

CASE VII.

“Frogmore House,

“July 27th, 1844.

“Previous to June, 1842, I had for several months felt very unwell, rising from my bed of a morning quite unrefreshed, having occasional night perspirations, and being scarcely ever free from an inclination to cough and expectorate; on stating my case to Mr. Merriman, of Kensington,

apothecary to the household of the Duchess of Kent, he made an examination of my chest, which he pronounced to be very weak, and prescribed accordingly. I, however, got rather worse than better, falling away considerably in weight; and on removing to Windsor, at the latter end of July, I consulted Mr. Brown, apothecary to the Queen; he also made a careful examination of my chest, and prescribed; some little time after, I felt assured, from the altered manner of those about me, that a very unfavourable opinion of me had gone abroad, and I made up my mind, if possible, to ascertain the truth. On seeing Mr. Brown the next day, I mentioned my impression to him, and put this straightforward question—‘Do you think you can do me any good?’ He replied, ‘I am not prepared to say that I can; I have seen cases further gone than your’s cured, but I have seen very many better cases terminate badly.’

“On the 17th of August, Dr. Chambers saw me, and gave an opinion rather more favourable than Mr. Brown; for some time I experienced considerable benefit from Dr. Chambers’s prescription, and made, though slow, such steady progress, that I began to be quite in spirits; I was, however, about this time violently attacked with diarrhœa, and in three days I had fallen back further than ever; I was now too unwell to do my duty, and, by the advice of Dr. Chambers and Mr. Brown, I went to Hastings on the 1st of

Nov., where I remained until the 14th of Jan., 1843, under the care of Dr. Duke; there I got worse, and, before I left, my cough was so bad that I could scarcely walk across the room; I had constant and copious night perspirations, and I was unable to lie either on my right side, or on my back; Dr. Duke told my brother, who was with me, that if he did not wish me to die there, he had better remove me.

“Accordingly I was removed to Clarence House, St. James’s, and was the next day visited by Dr. Chambers. Under his care I again improved considerably, and in April was able to go into the country; but I could not get up my strength at all, and returned again to Clarence House the latter end of May. From this time till the 8th of June I continued much the same, being quite unable to do anything. I then went to Homberg, in Germany, and remained three months under the care of Sir Alexander Downie, drinking the mineral waters; at first they appeared to do me a little good, but I returned to England at the end of August, no better. On my return to London I was so ill that I could scarcely walk a hundred yards. I was greatly emaciated, and I certainly felt very little hope of ever recovering, and I believe there were very few who saw me who had any hope either. After I had been in town about ten days, Mr. Merriman visited me, by the Duchess of Kent’s desire, bring-

ing with him a physician (I believe Dr. Cotton, of Kensington), who examined my lungs. After consulting together, they gave it as their opinion that ‘medicine would do me no good,’ and went away without prescribing.

“I had at this time made up my mind to go to Madeira; but as it was scarcely far enough advanced in the year to go, I thought I would try a short time at Brighton. On my way there by railway I was fortunate enough to see in a newspaper a review of your treatise on the treatment of consumption by naphtha. The review of this work made a considerable impression on my mind, and on my return to London, three weeks after, I bought your little work, and was induced by the perusal of it to send for you. From this time you will be much better able to describe my case than I can myself; you know in what state you found me, and what progress I have made. I can only say, immediately after taking the naphtha, I began to feel better; my night perspirations soon ceased; my appetite became excellent; my bowels, which were scarcely ever relieved without medicine, recovered their tone to such an extent, that I have never needed an aperient since. On the 1st of June I returned to my situation, and have since been doing the duties of it, I believe, in an efficient and proper manner, without feeling the least inconvenience. I am as stout as ever I was,

and, although it may be perhaps too much at present to say I am as well as ever I was in my life, I certainly do look forward with confidence to being able to say so before long. I think I ought to add, that I believe there was no medical man who examined my chest before I was under your care who did not pronounce my lungs *tuberculous*, and this included more than a dozen, principally, of well known and eminent men. Almost the last words Dr. Chambers spoke to me (three weeks after I had been under your care) were—‘Take care of yourself—*both your lungs are diseased*’—you are aware that, after I had been under your treatment some months, Sir James Murray said he could find but little the matter with them, and that Dr. Elliotson has lately declared them to be ‘as sound as my eyes.’

On referring to my notes of this interesting case, I find, September 27th, 1843.—Expansion was deficient in the upper regions of the chest; dull sounds were elicited by percussion over the same regions. The respiratory murmur was inaudible for some extent below the left clavicle and in spots below the right; elsewhere it was feeble and bronchial. Below the fourth and fifth ribs the physical signs gave no evidence of disease. Decided bronchophony was perceptible in the right supra-scapular and clavicular regions; the

heart-sounds were augmented over the latter region ; vocal resonance was increased over the left clavicular region.

These symptoms gradually disappeared, and from an examination I made of Mr. Seabrook's chest in September last, about a year after he placed himself under my care, I found the expansion of the upper regions remarkably developed. Percussion yielded generally a good sound ; the respiratory murmur had become more audible and natural ; and the bronchophony, vocal resonance, and heart sounds less apparent. During the period of the treatment he gained nearly two stone in weight. On September 6th, I examined the capacity of his lungs for air, by Hutchinson's breath-meter ; a full expiration yielded 290 cubic inches of air, and, as Mr. Seabrook's height is five feet ten inches and three-fourths, it proves the capacity of his lungs for air to be above the healthy standard. It appears that a unanimity of opinion existed among the medical men who attended Mr. Seabrook before I saw him on the nature of his disease. That tubercles existed in both lungs when I was called in, cannot be doubted, both from my own examination and the high authority we have for its support, as it will be remembered, three weeks after the patient had been under my care, Dr. Chambers says, "Take care of yourself—*both your lungs are diseased.*"

Some months afterwards Sir James Murray said

he could find but little the matter with them; and Dr. Elliotson, more recently, considered them free from disease; added to this testimony is my own account of the improved condition of the physical signs: expansion augmented; dulness on percussion, bronchophony, vocal resonance, and heart sounds, diminished—indicating clearly the removal of some more or less solid matter in the substance of the lung, and as this was effected during the time he was under my treatment, I feel justified in stating that the removal of the tubercles was due to it.

April 20th, 1845.—Within the last few days I have seen Mr. Seabrook, and am able to add that he is in perfect health.

The following case is published by the permission of Mr. Evans:—

CASE VIII.

Mr. Evans, ætat. 29, residing at Oldham, near Manchester, consulted me on Oct. 11th, 1843. He informed me his family was healthy, and that he had enjoyed good health, with the exception of occasional deafness, until thirteen months ago, when he was attacked with inflammation of the lungs. For some time he had suffered from cough, which eventually terminated in expectoration. He had had an attack of hæmoptysis, his

breathing was very difficult, night perspirations severe, and he had wasted considerably. He had been attended by Dr. Bardsley, of Manchester, Mr. Rowntree, of Oldham, and Mr. Leach, of Shaw: the two latter gentlemen considered his case hopeless.

On Sept. 7th he was put under the naphtha treatment, and benefited so much by it, that he was able to make the journey to town Oct. 10th, although, when he commenced its use, he was confined to his bed in a helpless condition.

Expansion was deficient at the right clavicular region, where percussion elicited a dull sound; the respiratory murmur was absent over a small space about an inch below the right clavicle, where bronchophony was well-marked. The other side of the chest was healthy. I prescribed the following three times a-day:—

R Naphthæ rectific., m. xx.
Potassii iodidi, gr. iij.
Aquæ, ℥ss. M.

April 16th, 1844.—Since I saw the patient in the autumn of last year, he had been residing at Ventnor, in the Isle of Wight. He had entirely lost his cough, expectoration, and difficulty of breathing, and gained between two and three stone in weight; he felt as well as ever he had done in his life. I found expansion, although better, incomplete on the right side, and bronchial respiration now occupied the space where the respiratory murmur was absent in October, 1843.

CASE IX.

William Bellamy, ætat. 32, born in Lincolnshire, of a consumptive family, applied to me for advice, Dec. 28, 1843. He was a temperate man, and, without ever being robust, had enjoyed tolerable health, until the last six months, when, without any apparent cause, he was attacked by spitting of blood; this was followed by dry cough, which shortly ended in expectoration. Night sweats and difficulty of breathing were severe, and he had become greatly emaciated. He had been under the care of two eminent medical men in London, who diagnosed his disease phthisis. Percussion elicited a dull sound throughout the upper regions of the chest, which was more marked below the left clavicle, where the respiratory murmur was partly inaudible, and where it could be heard it was bronchial; on the right side it was bronchial also; bronchophony existed on both sides; pulse 100; appetite bad.

Rx Napht. ex. plumbi acetate, ʒiv;
Tinct. card. comp., ʒj;
Aq. destill., ʒiiss. M. Fiat. mistura
sumat. coch. min. ter in die.

After continuing this treatment for forty-two days, the cough, expectoration, and night sweats, entirely ceased, and he had gained considerably in flesh and strength; he had repeatedly observed the odour of the medicine in his water.

April 24th.—He informed me he had entered the service of a family as footman, at Tunbridge Wells, and continued to enjoy excellent health; nevertheless he did not give up the use of his medicine. The dull sounds on percussion were less marked, and the respiratory murmur was distinct throughout the chest, but more or less of a bronchial character.

July 9th.—Had latterly been residing at Brighton, and for the last fortnight had not been so well; cough had returned without expectoration; appetite good; pulse 104. Percussion yielded a dull sound in the superior regions of the chest; respiratory murmur distinct throughout; bronchophony on both sides. Thinks Brighton does not agree with him, as he had continued his medicine containing the *napht. ex. plumbi acetate*. I determined to try the effect of the rectified naphtha, and ordered the following:—

Rx *Naphth. rectific.*, ʒvj;
Tinct. digit., ʒij;
Aq. destill., ʒi. *M. Fiant. gutt.*
sumat., m. xxx. ter in die, ex aquâ.

After continuing this medicine a week, he found himself decidedly worse; besides an augmentation of his other symptoms he complained of severe pain in the left side, which extended to the inferior scapular region of the same part; on auscultating over the painful surface, rubbing sounds were heard. A blister was ordered for

the side, and the former medicine prescribed. At the end of another week improvement had taken place; the following was the result of the examination:—

Pulse, 96; number of respirations per minute, 22; height, 5ft., 7 $\frac{1}{4}$ in.; weight, 9st.; cubic inches of air by a full expiration, 137; temperature, 65.

Oct. 1st.—The patient had continued the treatment up to the present date, although he had felt well for some time past; the examination showed the following improvement:—

Pulse, 100; number of respirations per minute, 22; weight, 9st. 1lb.; cubic inches of air by a full expiration, 158; temperature, 64.

No one can fail to perceive the marked beneficial influence the treatment had in both these cases; every symptom of the disease disappeared, except some of the physical signs, and the patients recovered their accustomed strength and activity. Bellamy's case is additionally interesting from the recovery having taken place through Mr. Barry's naphtha, prepared from the acetate of lead; whether this would have happened, had the ordinary spirit been used, is a question that cannot be answered, but it is curious, that when it was substituted for the *napht. ex. plumbi acetate*, after his return from Brighton, he became worse. This might have been entirely owing to the pleurisy that supervened; his cough certainly returned

whilst he was at Brighton, although he was taking Mr. Barry's naphtha. However, I was not disposed to carry on the experiment further, as the disease seemed to be on the advance, but at once returned to the use of the *napht. ex. plumbi acetate*, under the use of which he was again restored to health in a few weeks.

Another point of interest in this case, is the increased capacity which the lungs manifested for air in the progress of the cure. On July the 27th, after three trials, 137 inches of air were all he could expel from his lungs: on October the 1st., he expelled 158 cubic inches.

CASE IX.

Miss Heynes, *ætat.* 22, was placed under my care, January 21st, 1844. She was born, and always resided at Bagshot; her mother and several members of her family had died of phthisis. Mr. Heynes, her father, was remarkably healthy, and a highly intelligent surgeon. He was medical attendant for many years to His Royal Highness the late Duke of Gloucester. The patient had always enjoyed good health until the last three months, about which period cough and slight expectoration commenced, accompanied by difficulty of breathing, loss of strength, and emaciation. Expansion was deficient on the left side. Percussion elicited a dull sound below both clavi-

cles, but was more marked below the left, where the respiratory murmur was bronchial, accompanied by a dry crackling rale. The sounds of the heart and vocal resonance were transmitted over the same space with unusual loudness. The pulse were 112, the appetite was deficient, and the bowels were confined. The treatment consisted of naphtha, variously combined with other remedies, as well as counter-irritants, which were continued for the space of six months. She did not fully recover until the summer ; since which period she has enjoyed excellent health.

All persons naturally wish to prolong life, no matter how serious is the disease under which they labour, so long as the mental powers are not affected. This applies particularly to phthisis ; the erroneous conclusions patients suffering from this affection arrive at has often been adverted to ; many present themselves in the greatest confidence, believing that there is but little the matter with them, when their lungs are half destroyed by tuberculous excavations. In some instances, so late is the application made for advice, that the most remote prospect of success is cut off. But the other day, a young lady died only a few hours after I had seen her, and in another instance a clergyman died early in the morning, before his medical attendant, who I had met in consultation the previous evening, could forward him a dose of medicine.

Repeatedly have patients within a day or two of their dissolution sought my advice, and, although scarcely able to utter a sentence, have generally managed to inquire, not without great effort, *whether their lungs were affected!*

Notwithstanding all these drawbacks, I have treated two cases out of sixty-two successfully, after cavities had established themselves, exclusively of the twenty-third case, reported in the first edition of this book. It must be remembered that the cavities in both cases were small, whilst the greater portion of the lungs was uncontaminated with tubercle. In many of the cases in which recovery did not take place, the most extraordinary and unexpected relief in all the distressing symptoms of the disease was experienced, so that life was not only prolonged, but rendered more comfortable; I do not pretend this was a constant occurrence, at the same time it was not an unfrequent one. But it is chiefly in the early stage of the disease that success is to be expected, as seen by the cases recorded by myself and others. From my own notes of two hundred cases, treated during the past eighteen months, at this period of its development, I have realized not less than sixty-six per cent. of recoveries, and however startling this may appear to those individuals who have not given the treatment a fair trial, or to those who have seen it fail in occasional cases, I emphati-

cally declare, that every one, both in its local and general symptoms, afforded good evidence to my mind of its being tubercular consumption.

I thought it unnecessary to give many of the cases in this volume, as they would have augmented its size without perhaps enhancing its value much. As a sufficient number of my own cases was published in the former edition, for establishing the utility of the treatment, those now inserted, with one or two exceptions, are cases which were diagnosed by men of standing in the profession, before they were placed under my care ; this was done purposely, that, in the event of the nature of the cases being disputed, I might have something more to appeal to than my own unsupported diagnosis. Nevertheless, I shall not be surprised at the truth of this statement being questioned. Those who have come to the conclusion that phthisis is an incurable affection, after long experience, are not very likely to be believers ; and less likely are they who, holding the same belief, only recognise the disease as phthisis, when it has reached the stage of excavation ; as if phthisis did not only commence gradually, like other chronic affections, but steal stealthily and silently along, without giving any warning of its approach, until it has destroyed so much of the important organs, in which it has located itself, that ninety-five out of every hundred perish. On the contrary, there is abun-

dance of symptoms to point it out, not only, if I may so speak, in its infancy, but to distinguish it from all other diseases, in ninety-nine cases out of a hundred, which every well-informed medical man, with the use of the stethoscope and percussion, is capable of doing.

However powerfully the former opinion may be advocated,—whether from ignorance or malevolent motives,—the broad facts advanced in this volume must, sooner or later, be embraced by all medical men, unless some more efficient means should be discovered for arresting the progress of this wholesale destroyer of the human race.

It will not be here out of place, if we endeavour to ascertain how it happens that pulmonary consumption is treated with so much success at one stage, and such limited benefit at another. If this problem could be unravelled, additional light would be thrown upon the subject, and a clearer prospect would be afforded of the probable success or failure of the treatment in every case ; this would make the labours of the practitioner less irksome and unsatisfactory, by removing all uncertainty in the treatment of this disease.

When tubercles are first observed in the tissue of the lungs in the form of grey, semi-transparent granulations, they are enclosed in membranous sacs, which shield them from the atmospherical air, and consequently exist under very different influences then, than they do after they have matu-

rated, and cavities are developed. At this period of their formation, they sometimes occasion so little disturbance in the system, that they pass unnoticed, unless a careful examination of the chest is made; at other times, the general health becomes more or less deranged, but admits of more easy reparation, than when the tubercles have ripened, and excavations are formed; in the latter condition, however irritating the action of the atmosphere may be to the ulcerated surfaces of the diseased lungs, they are then exposed to all its baneful agency; and, as its pernicious effects upon denuded surfaces of the cuticle are well known, it cannot be conceived to be less so on the delicate tissue of the lung in a state of irritation or inflammation arising from the presence of tubercle.

Further, it is a well-known general law, that as disease augments in power, so does the healthy organism decay, until, at length, it gains such ascendancy, as seen in phthisis, that fresh crops of tubercles are deposited, which further hastens the final catastrophe, and hurries its victims to the grave.

In treating the disease at different stages, the difficulties to be overcome are infinitely greater in one than the other; where tubercles are ripened, there is additional irritation kept up by the atmosphere, besides the generation of fresh crops of tubercles to contend with; but these are not all

the difficulties to be encountered : at each inspiration and expiration at this epoch of the affection, which occur as frequently as forty to eighty times per minute, day and night, during the patient's life, the sides of the cavity undergo an expansion and contraction, which must operate most prejudicially on the healing process ; for it is known that the surgeon not only withdraws the ulcerated surface from the presence of the atmosphere, but he enjoins rest and quiet also, for the purpose of restoring the parts to health ; the unripened tubercle is not within this circle of exciting causes, which to my mind offers a satisfactory explanation why the disease is so much more amenable to treatment in the first stage than in any other.

Another question which arises immediately from this is, why are the recoveries limited to sixty-six per cent. before the stage of excavation ? Why are they not all cured ? It may be answered, that in this category there are many patients who come under treatment at that period when the tubercles are about softening ; others have really reached this stage, and should be included under it ; but, owing to the small size of the cavity, or its central situation, it does not afford those symptoms which unequivocally denote its existence ; and as the bulk of such cases terminate fatally, they considerably abridge the number of recoveries.

I have always found cases of acute phthisis

end unfavourably; deaths are more frequent in the complicated than in the simple form of the disease, as may be frequently observed when it is conjoined with organic lesions of the stomach, bowels, liver, or heart; severe losses of blood, as in the case of miscarriage, defective diet, and fatigue, cases arising out of excessive drinking, and those growing out of a constitutional taint, are more frequently fatal, than those produced through atmospherical changes.

However, there are many of the milder cases springing out of hereditary predisposition which undoubtedly recover; but the severest and most inveterate form of the disease usually grows out of hereditary taint, and, notwithstanding all the best prophylactic measures commenced at the cradle, they fail to ward off the disease, however well calculated they may be to retard its advance in milder cases; in the same family where such cases occur, other members will escape, although exposed to a variety of exciting causes, or the disease may slowly or only feebly develope itself under the most favourable circumstances for its propagation; between these extremes every variety is met with—a fact which is well known to all medical men who have had ordinary opportunities of studying phthisis.

The reasons which induced me to deviate from that line of medical practice, which has so universally and for so long a time been in vogue, for

that now submitted to the profession, was the fatal termination of all cases, whatever was the treatment adopted, during an experience of upwards of twenty years; I was led to the conclusion, from a careful survey of the chemical analysis of tubercle by Thenard,* that it was defective, inasmuch as the composition of the animal matter, which, it will be observed, amounted to ninety-eight parts out of a hundred, had not been investigated. From the greasy nature of tubercle in its crude state, there did not exist the slightest doubt in my mind that carbon entered largely into its formation, and that its composition had a striking resemblance to fatty matter; this opinion was further strengthened by the discovery of those spherical bodies, which strikingly resemble the smallest oil globules found in milk; further investigation may prove that the last change effected in tubercles, before being expelled from the lungs, is a return to that normal structure from whence they derive their existence, which will not only be a curious but highly interesting fact.

From these opinions I determined to employ those compound agents rich in carbon and hydrogen in the treatment of phthisis, which had not

* Animal matter	98.15
Muriate of soda	} 1.85
Phosphate of lime	
Carbonate of lime	
Oxide of iron, a trace	

been previously used in medicine ; not with the idea that they would make up the deficiency in fat which the system had sustained in the progress of the disease, but that they would be productive of a change in the blood powerful enough to destroy the morbid condition which generated tubercle.

Naphtha, from its chemical composition, appeared to me most likely to stop the ruthless progress of destruction, which consumption has effected and is still effecting in the human race. The correctness of my judgment will be tested by an examination of the cases, many of which were conducted under every disadvantage.

Naphtha was a term first applied to a natural exudation from the earth, and is said to possess different characters, according to the particular part of the globe where it is found. In some parts it has a yellowish white colour, and is highly volatile and combustible ; and in others it is of a viscid consistence, and nearly black. The latter naphtha is well known in the commercial world, and is designated Barbadoes tar, the term being due to the island in the West Indies bearing that name, where it is found in great abundance. Although in nature the Barbadoes tar differs in character, by the process of distillation, it assumes the same appearance as the other natural production, and both are hydro-carbons.

Of late several products, the result of the advanced state of the arts, have received the

name of naphtha, although the only characters which they have in common, to entitle them to that appellation, is that of volatility and inflammability. These naphthas are known in the market as the naphtha of coal tar, pyroxylic spirit,* and pyro-acetic spirit.†

Coal tar is the result of the manufacture of gas, and very closely resembles the Barbadoes tar, for which it has been frequently substituted.

Pyroxylic spirit is generated in the process for obtaining acetic acid from wood, and has an alcoholic character; and if not quite pure is somewhat oily.

Pyro-acetic spirit is obtained by the destructive distillation of an acetate generally of lead or lime, and in its outward form is scarcely distinguished from pyroxylic spirit. Its chemical properties are, however, more spirituous, its density being nearly equal to that of alcohol, and contains more oxygen than the former.

The distilled products of those naphthas which exude from the ground and coal tar are immiscible in water; while pure pyroxylic and pyro-acetic spirit will unite in all proportions without the transparency being disturbed. The pyroxylic spirit, however, in the state in which it is gene-

* Pyroligneous ether and hydrate of oxide of methule, are also synonyms for this kind of naphtha.

† Mesitic alcohol or acetone are synonymous with naphtha.

rally found in commerce, becomes milky on being mixed with water, owing to the oily matter it contains.

It was my good fortune to commence my experiments with that kind of naphtha called pyro-acetic spirit, being quite unaware, at the time, that there was more than one kind; and the knowledge that I had been in this particular the “mere sport of circumstances,” grew out of an occasional change in the druggist, and the favourable or unfavourable symptoms which followed the one or other supply.* By experiment, I soon formed a criterion by which I could identify the kind of naphtha I had found to be successful. My test was its colourless and transparent character, and agreeable ethereal alcoholic odour; its specific gravity, which was 0·823 to 0·824; its increase of temperature consequent upon mixture with water; its preservation of appearance on the addition of nitric acid; and its taste being warm, without the least sensation of burning. “Dr. Ure has recently suggested an easy method of effecting this object, which is founded on the following facts. If nitric acid of specific gravity 1·45 be added to pyroxylic spirit, the mixture

* I have since learned that the naphtha I originally prescribed was put aside by the druggist, as a useless article, in consequence of its failing to dissolve gums, for which purpose it had been purchased.

assumes a red colour, but no effervescence takes place. If the same acid be added to pyro-acetic spirit, there will be no change of colour, but an effervescence will slowly be formed, accompanied with an elevation of temperature, and copious evolution of gas, resembling in appearance the action resulting from the mixture of alcohol with nitric acid, but with an acetic smell, instead of an etherious one. Pyro-acetic spirit may also be generally distinguished from pyroxylic spirit by its causing no appearance of milkiness on mixing with water, in the state in which it is met with in commerce.”*

The tests here submitted will be amply sufficient to distinguish the naphtha best suited to pulmonary consumption. The question as to its real nature, which is still a subject of dispute, is only important as a scientific problem, inasmuch as it more or less affects the nomenclature. The settlement of these points I must leave to the practical chemist, and although it appears that the remedy I employ is pyro-acetic spirit, I do not feel myself justified, at present, in calling it by any other name than that of naphtha.

From the frequent substitution of deleterious spirits by chemists, for medicinal naphtha, and the uncertainty and discontent which have been

* Pharmaceutical Journal, vol. iii., p. 35.

created, in consequence as to the real value of this agent, I was extremely desirous, that a definite compound should be manufactured, possessing fixed characters, that would serve to distinguish it readily from all others. This, it appeared to me, might be accomplished, were the spirit obtained from only one source, prepared under the direction of a well-informed chemist. The adoption of some such plan was still further called for, from the fact that in several instances, where chemists possessed the proper agent at one time, they had a deleterious one at another; and, moreover, I have seldom seen two samples precisely alike from the same manufactory. Whether this was owing to carelessness, or that the quantity manufactured was too small, it being in the hands of different makers, for any one to feel a sufficient interest in its preparation to insure uniformity, I know not; but the question demands, from its great importance, the highest consideration. I also entertained a hope, that some modified form of this remedy would exhibit powers still more efficacious than those possessed by the naphtha I first employed in the treatment of consumption. Mr. Donovan, the distinguished and well known chemist in Dublin, has greatly interested himself in this question; he has furnished me with several varieties of this spirit, prepared by himself, the virtues of which I am now testing. I hardly need state, that in order

to arrive at a correct and satisfactory conclusion, much time, numerous cases in all stages of the disease, and close observation, are necessary, and although, in some instances, cases of recovery have been effected by some of Mr. Donovan's preparations, which the original spirit had failed to accomplish, they have not been sufficiently numerous to justify me in forming an opinion as to their real worth at the present moment.

The successful use of naphtha, as an internal remedy, induced me to try its effects by inhalation, to which I was the more inclined from the results of the following experiments:—

1st.—A little naphtha having been put into a bent tube, resembling the capital **U**, some expectorated matter was poured upon it, which had been determined with the microscope to be rich in globules of tubercle. Gentle heat was then applied, and the naphtha driven off, when the super-imposed secretion presented a mere shapeless mass of animal matter, the globules having entirely disappeared.

2nd.—Some tuberculous secretion, highly charged with globules of tubercle, was placed under the field of the microscope, and a drop of naphtha added, when an immediate disappearance of the globules ensued, leaving behind a mass of the same character as on the former case. The frequent repetition of this experiment invariably led to the same result.

3.—Some tuberculous secretion of the lungs was put into a portion of the intestine of a child, and placed over a wide mouthed bottle which contained a small quantity of naphtha, between which and the intestine a clear space of three inches remained. A spirit lamp was then placed under the bottle, and a very gentle heat applied until slight ebullition took place, which was continued for an hour. The contents, when removed from the intestine and examined with the microscope, presented the same appearance as described in the previous experiments.

Considerable benefit resulted from the inhalation of naphtha, in lessening the difficulty of breathing in the most advanced cases, in rendering muscular efforts less painful and fatiguing, and in a general alleviation of all those symptoms which distress the consumptive patient. The expectoration is not unfrequently rather increased immediately after the inhalation of naphtha, but the cough is changed for one of a milder character. Improvement was generally observed to follow that kind of inhalation which was performed with little exertion. It may be employed several times in the day, unless it produces nausea and sickness, when its use should be suspended ; and on its being resumed, in such cases, it should be applied for a shorter period. When there is spitting of blood, its use is not admissible.

[In employing naphtha for the purpose of inhalation, the only object I had in view was that, as it destroyed the characters of tubercle after its removal from the body, it might dissipate that morbid product exposed to its fumes in cavities in the lungs, and thus remove a source of mischief from the system at large.]

CHAPTER VIII.

CASES SUCCESSFULLY TREATED WITH NAPIITHA BY OTHER MEDICAL MEN.

CASE X.

The following case has been forwarded to me by Mr. Austen, a surgeon, residing at 3, Walker Place, Lower Road, Rotherhithe:—

“Mary Stocker, ætat. 36, of slight physical development, has for two or three years past been troubled with slight cough, expectoration, and shortness of breath, especially in the winter months, and diminishing, but not wholly ceasing, in the summer or warmer weather. Several of her relatives, including her father, died of consumption. On the approach of the winter of 1843-44, her cough, difficulty of breathing, and debility, increased, and she applied to the Hospital for Diseases of the Lungs, where she continued an out-patient until after Christmas, 1843, being obliged to discontinue her visits from increased cough and dyspnœa. At this time,

Jan. 27, 1844, she became a patient of mine. She had excessive dyspnoea, cough, slight muco-purulent expectoration, occasionally tinged with blood, and mixed with opaque white fragments of the size of millet seeds and resembling in appearance boiled rice, night sweats, emaciation, and increasing debility. The catamenial discharge had ceased for several months. Her chest was flattened generally. There was dulness on percussion under both clavicles, especially the right, where the respiratory murmur was indistinctly heard, and there was loud bronchophony. The respiratory murmur on the right side was louder and harsher than in the corresponding parts of the left lung. She commenced the use of the naphtha, and continued it for three months; all the symptoms of the pulmonary affection ceasing. She has since had a cough and expectoration after exposure to cold, but auscultation elicited only pulmonary catarrh, without any of the symptoms enumerated as existing in her former attack, and they quickly yielded to ordinary treatment. She is now as well as she has known herself to be for ten years past."

Mr. Austen observes, "My experience in naphtha, although limited, is favourable. The patients, according to my observations, always find relief, as both diarrhoea and night sweats generally abate. It should, I think, never be

administered where there are severe febrile symptoms, as a hot and dry skin, a quick hard pulse, and thirst, constituting what we may term the acute stage of phthisis. Amongst the labouring classes it is of great value, as the relief they obtain is more speedy than from the use of any other remedy. I allude to cases among them in which the disease is prominently marked, with cavities in the lungs, hæmoptysis, &c., and in which it is very desirable to know a remedy which shall enable them to resume or continue their labour, even for a short period, although the result may be ultimately fatal. I have met with two cases in which no benefit was derived, and yet in them the disease had not progressed very far. Patients labouring under chronic bronchitis do not appear to derive benefit from the remedy.

The under-mentioned case was given to me by Dr. W. H. Brown, F.L.S., Lecturer on Botany and Comparative Anatomy at the Aldersgate Street School of Medicine, and Physician to the Farringdon Dispensary, in whose practice it occurred.*

CASE XI.

“ Mary Fenner, the subject of the present, was a young married woman, 26 years of age, belonging

* It is extracted from a paper which Mr. J. J. Brown (Dr. Brown's brother) drew up from Dr. Brown's notes of the case, and read before a medical society.

to a consumptive family, two of her sisters having fallen victims to it. She applied for medical advice for the first time on the 4th of June last. The symptoms which her complaint then manifested were, constitutionally, cough, aching pain in the left side and between the shoulders, shortness of breath, greatly increased on ascending, most profuse night perspirations, sputa frothy, occasionally tinged with blood, general debility and considerable marasmus ; and this state of things, she affirmed, had been in existence some eight or nine weeks, and gave her very great mental uneasiness, as it was exactly the way in which her sisters had begun to get ill. Physically the signs were, great dulness of sound on percussing over the superior portion of the left lung, total loss of the respiratory murmur in this situation, bronchial breathing and slight bronchophony ; on the right side respiration was altogether puerile. From these two sets of symptoms, the constitutional and the physical, it was inferred that the left lung was extensively studded with tubercular deposit, which was in the second stage, or that immediately preceding softening.

“ For a fortnight she was put under the usual tonic-expectorant treatment ; no good resulted from this, however ; indeed, on the contrary, she became more debilitated ; the night perspirations became more excessive, wasting of body was still going on ; the physical signs seemed to indicate the

commencement of softening, and altogether she seemed to be rapidly approaching—

‘That undiscovered country, from whose bourne
No traveller returns.’

“At the end of this time (that is, the fortnight) all other remedies were discontinued, and she was put under naphtha treatment, fifteen drops of which preparation she was ordered to take three times a day in a little cold water, to begin with. In three days after commencing with this remedy the night perspirations had entirely ceased, and I may say, once for all, never returned throughout the whole progress of the disorder, and breathing was not near so laboriously accomplished.

“A week after this, that is, ten days from the commencement of this treatment, the breathing was still better, the cough less troublesome, the sputa still frothy, but never presenting its former bloody tinge, pains in the chest and side less severe; no alteration could be discovered, however, in the physical signs. She was ordered to increase her dose five drops.

“The third week found matters most unequivocally improved: dyspnœa comparatively gone; cough much better, generally now of a dry character; pains considerably less; strength improved; certainly a gain rather than a loss of flesh. The physical signs clearly evinced that the lung was more permeable to air; the respiratory murmur was but slightly bronchial, and the

bronchophony had disappeared ; percussion, too, gave a much less dull sound.

“ During the fourth week as good progress towards recovery was made as in the former. The constitutional symptoms were all rapidly abating, the appetite was good, indeed the whole stamina of the constitution seemed to be coming round, and the patient was extremely loth to consider herself in the light of a patient any longer. Physically, percussion yielded a much clearer sound, and the respiratory murmur assumed a more natural character.

“ At the end of the sixth week, neither constitutional nor physical symptoms of disease of the lungs being present, nor any signs of derangement of any other organ, the patient being advised what course to follow in future, was dismissed from medical treatment. The time that has elapsed since this is as yet short ; it is, however, somewhat satisfactory to know, that not one of the former unpleasant symptoms has evinced a disposition to return.”

The following case of the successful employment of naphtha in phthisis, by John Buxton, M.D., M.R.C.S., is extracted from the “ Lancet.”

CASE XII.

“ The successful treatment of phthisis is so un-
common, that I shall offer no apology for pub-

lishing the following case, in which naphtha or pyro-acetic spirit has been employed with most beneficial results.

“A. B., ætat. 17, apprentice to an undertaker, was attacked in Oct. last with cold and cough, accompanied by hæmoptysis, which, though slight, was continually recurring. In the winter preceding he had suffered from cough and expectoration, which did not leave him till May or June, when he went for a short time to the sea-side. He now presented all the appearances of a person bordering on the second stage of phthisis, —tall, spare, narrow-chested, very pale, and the nails very much incurvated. He was very languid and dull, fully persuaded that he could not recover from his illness, as several among his paternal relations had fallen victims to the same disease, and his father had died from it the previous year. His business required him to be out in all weathers, and often to walk for a distance of eight or ten miles. Another medical man, who formerly attended his father, had seen him, and concurred with me in giving his mother no hope of his recovery. Our belief was, that he would not last longer than six or seven months if he remained in this country; and as I doubted whether a sea-voyage would prove a preservative to him, I obtained the opinion of Dr. Fox, physician to the Infirmary for Diseases of the Lungs; he agreed with me in considering that a warmer climate

and sea-air held out some prospect of success, and thought this a fair case for trying naphtha, at least till he started; he also advised the daily washing of the chest with vinegar and water, care as to dress, and taking a tumblerful of new milk in the morning early. The stethoscopic signs were not very marked; in the portion of the chest just below the clavicles the vesicular murmur was rather harsh, and lower down it was puerile, with some mucous rale over the whole; and perhaps partly owing to the patient's emaciated condition, as well as to the tubercular deposit in the lungs, the heart's action was heard over a considerable part of both sides of the chest, especially under the clavicles. When he awoke in the morning he generally found himself perspiring rather freely, and with coughing expectorated some white frothy mucus, which was often streaked with blood.

“To check the hæmoptysis and ease the cough, he had oxymel of squills and diluted sulphuric acid, and on the 14th of November I began with ten minims of naphtha, three times a day in water, which in a couple of days were increased to fifteen minims. He continued this tolerably regularly till about the end of January, when, in consequence of having regained his health, he withdrew himself from treatment, having from the time of commencing this remedy steadily im-

proved in health in every respect. He had lost his perspirations, cough, and expectoration entirely, had obtained some colour, and his appetite, strength, and spirits, were better than they had ever previously been.

“On the 27th of May I saw him ; he told me he felt perfectly well, and on carefully examining his chest I found the respiratory murmur uniform and healthy, without rale or harshness, and the cardiac action, though still audible on both sides of the chest, was less distinct than formerly. Though still thin and spare, he appeared in thoroughly good health.

“If we can establish this as a case of phthisis—and I believe I am able to produce unquestionable evidence of this—I think it is a fair instance of cure by naphtha, as the patient’s mode of life was not changed, and the only auxiliary means were washing the chest daily with vinegar and water, care as to dress, and taking a tumblerful of milk on waking in the morning. I cannot flatter myself that my patient’s strong hereditary tendency to consumption is eradicated, but I am fully persuaded that if it does return, some length of time must elapse ere the chest can be so disordered as to require him to seek medical advice on that score.

“This case is not the only one in which I have employed naphtha with advantage ; but

as some of the patients are still under treatment, it would be premature to adduce them, and in other instances the pulmonary affection was complicated with disease in other organs.

“In some cases of bronchitis, in the chronic stage, it has proved in my hands an irritant, so that I am led to consider its action, as Dr. Hastings does in his “Treatise on the Use of Naphtha in Phthisis,” to be that of a stimulant tonic, exerting a specific agency in phthisical complaints.

“I would especially caution any one who may be disposed to give this remedial agent a trial, to see to it himself that the naphtha is good, as I obtained, from an establishment deservedly celebrated for the general purity of their drugs, two quantities of naphtha, very different in nature and effects from that which has now so often been of service in the treatment of phthisis. The simplest tests of its goodness are, that its odour is not strong nor very disagreeable, and particularly that it mixes with water just as alcohol does, without causing any milkiness or discoloration, and evolving some heat.

“Brownlow Street, Bedford Row,

“June 1st, 1844.”

The following case is presented to me by Dr. Hopkins:—

CASE XIII.

“ 1, Elizabeth Street, Eaton Square,
“ April 4th, 1845.

“ DEAR SIR,—

“ In compliance with your wish, I have forwarded the case of my sister, Mrs. Goodman, whose recovery, under your care and treatment with medicinal naphtha, is certainly very extraordinary. I shall content myself with stating the plain facts of her case. Sceptical as you know I have always been with regard to the advantages to be derived from the administration of that medicine, I must candidly confess that my experience of its efficacy has hitherto been so limited as to preclude me from offering any opinion of my own as to its *general* success. The impressions and prejudices I hold in common with the rest of my profession as to the nature of phthisis, have hitherto contributed to prevent me giving it a *fair*, or indeed anything like a trial; nevertheless, it is but plain justice to yourself and society that I should make you acquainted with the success attending your treatment, and the previous history of her case, the outlines of which are as follow:—

“ Mrs. Goodman, ætat. 29, of a nervous temperament, medium stature, of a good constitu-

tion naturally, and exempt from every ailment, excepting a little chronic bronchitis during the winterly months of the few past years; was attended in her first puerperal state Nov. 16th, 1841, by Mr. Hunter, sen., a gentleman of considerable practice, in Islington; it appears that in that confinement everything proceeded as happily as could be wished, until four days after the birth of her infant, when symptoms of pleuritis and pneumonia, in the most acute form, presented themselves; in this critical state my friend and late colleague, Dr. Golding Bird, was called in, but in consequence of some family differences then existing, I did not as on former occasions attend. The symptoms became so formidable as to afford no hopes of recovery; this melancholy intelligence those gentlemen communicated to my relatives, and in that state of affairs a mutual friend (a clergyman) informed me of her hopeless condition, and begged that I would not allow any family differences to prevent my seeing her before she died. I immediately proceeded to her house, and found her in a very precarious state, having coughed up the previous day as much as five or six ounces of pus, streaked with blood, and of an intolerable smell. On examination of the chest, the lungs had all the symptoms of inflammation, together with the pleura; little or no air could, from

the sounds, be heard to enter the bronchial tubes. Sordes had accumulated about the teeth, gums, and lips, and other typhoid symptoms existed on carefully examining the tongue, pupil of the eye, and other delicate tests in extreme cases; and weighing carefully the totality of the symptoms, I was induced to form a more favourable opinion of her than had been conveyed by the other medical gentlemen. I stated to my friends, who were in the extreme of anxiety and grief, that I thought she would certainly recover from that attack, but that it was most probable, symptoms of pulmonary consumption would supervene, which, in the end, would prove fatal. The next day I was sent for to attend a patient in Wales; whilst there the alarming symptoms continued unabated, as I learned from a letter sent me by Dr. Golding Bird. To the surprise of all, she continued, however, to improve, and, in three months afterwards, had become as well as she had ever been, and so continued. In the month of October, 1843, she again became pregnant; three months had scarcely elapsed before the various symptoms of pulmonary consumption shewed themselves, such as violent cough, constant expectoration of purulent matter, nocturnal perspirations, vomiting after meals, great emaciation, pulse ranging from 90 to 110. Percussion in upper clavicu- lar portion

of the chest gave a dull sound ; considerable dyspnœa existed. Auscultation elicited a coarse bronchial respiration, mixed with mucous ronchi in the anterior superior portion of each lung. These symptoms continued, with slight variations in the urgency of the cough and in the amount of expectoration, in spite of all the remedies I had prescribed, and which were of that class hitherto found the most serviceable by the experience of ages of physicians. In this state I mentioned to my friends that you thought that you had discovered a remedy for the disease which she laboured under, and added my doubts as to its success, but recommended, as the most *fair* plan, that she should put herself under your care ; and I promised to introduce her to you. I did so, and left her under your care. All I know further of her case is, that she became gradually better, passed through her subsequent confinement happily, and has been ever since quite well.

“I remain, dear Sir,

“Yours, very truly,

“JOHN MORGAN HOPKINS, M.D.”

I may observe, when Mrs. Goodman placed herself under my care, she exhibited all the general and local symptoms of confirmed phthisis ; they gradually and at length en-

tirely disappeared under the use of the naphtha treatment, and she is now, April, 1845, in perfect health.

The two following cases were published in the "Lancet," May 23rd, 1843, and Nov. 25th, 1843, by Mr. Wilson, surgeon, of Eccleston Square, Pimlico :—

CASE XIV.

"Richard Marsham, ætat. 26, by trade a carpenter, consulted me on February 3, 1843. He states that, five years past last Christmas, when he was working as a miller, he attempted to get on his back a sack of wheat, which, being above his reach, fell with a jerk on his shoulders, and strained him, so that he could not use his left arm for some time. About six months after the accident his left shoulder 'began to grow out,' when he applied to a surgeon, who told him that nothing could be done for it. He worked at the mill one year, and two at a farm. During the last two years he has been employed as a labourer in London. About three months back he thought that his right shoulder began to grow out; this, with other feelings of bad health, induces him now to seek relief. He is of a fair complexion, &c., with a general appearance indicative of the scrofulous diathesis.

He has lost one unmarried sister, ætat. 38, from consumption, and another, married, ætat. 21, from a 'bad throat.' He never was very strong, and is now losing flesh and strength rapidly. He has night perspirations, and little or no appetite; wandering pains about his chest, almost constantly between his shoulders; his spine is curved (where there is considerable tenderness on pressure), bending towards the left shoulder, and causing great rotundity of that side of the thorax, posteriorly. For support, over the same shoulder, he wears a broad belt, which is attached to another encircling his chest. The walls of the thorax, on the right side, seem as if they had approximated antero-posteriorly, so that collapse and immobility are very striking. The infra-clavicular depression is not so great on the left side, throughout which respiration is highly puerile. In the entire upper part of the right lung respiration is absent, and slightly audible in spots only in the lower part. Percussion elicits a dull sound over both infra-clavicular regions, particularly over the right. The heart-sounds are very audible over the same spaces.

"I examined him again on the 5th and 7th of February. On the latter date a physician also stethoscoped him, whose diagnosis tallied with my own, in pronouncing his lungs to be the seat of tuberculous deposit. On February 12th he was stethoscoped with the same result. He felt

himself getting daily worse, when I, with much scepticism, determined to try naphtha, the first and only medicine he has had from me. He was ordered ten drops, to be gradually increased to twenty drops, three times a-day. At the end of a week, to my surprise, he expressed himself as being much better; his *perspirations had ceased, his appetite and spirits were returning, the spinal tenderness had gone, the breathing was more extended in the right lung*, although very weak, and the *puerile respiration in the left lung was greatly diminished*. The treatment was continued for six weeks, when he was vastly improved in every respect; the right side seemed to have become more developed, and where collapse and immobility had previously existed, there was now considerable freedom and elevation of the ribs during inspiration. In fact, he was so well that he abandoned his medicine (naphtha). After a *week's discontinuance of it he felt much worse*, and gladly resumed taking it, *and at the end of another week he felt himself in the same improved condition as when he left it off*.

“On the 7th instant I noted the following particulars:—Anteriorly, percussion bespeaks improvement,—the sounds on both sides are nearly equal; *respiration is audible over the right infra-clavicular space*, but not so distinct as over the left; expiration is loud in the right supra-scapular fossa; posteriorly percussion is pretty good,

excepting over the scapulæ, where it is rather dull. Respiration is much improved, and nearly audible alike on both sides. He says he is gaining flesh and strength fast, and has an excellent appetite. When he began taking the naphtha, he weighed 9st. 7lbs., and now he weighs 10st. 6lbs., being an increase of thirteen pounds in twelve weeks. The belt which encircles his chest he has been obliged to lengthen considerably, arising, in my opinion, not so much from additional substance on his ribs, as from their partial restoration to their former wonted action. The heart-sounds are less audible.

“I have other cases progressing most favourably under the naphtha treatment, which I shall report in due time. In one case, in particular, I adopted precaution against error of diagnosis, in having the patient stethoscoped by two high authorities on auscultation, who both pronounced the patient to be phthisical.”

CASE XV.

“Mrs. A., a widow, aged twenty-seven years, by occupation an embroideress, consulted me on the 5th of March, 1843. She had enjoyed tolerable health till August, 1842, when she went to Brighton with her husband, who was then labouring under consumption, of which he died five weeks afterwards. She had been a close at-

tendant upon him, during the whole period of his illness, viz., three years. She attributed her complaint to cold and fatigue, with want of rest. She had cough, which she said had sometimes left her for two or three weeks, but it always returned again; while she sat quiet she was pretty free from cough, but on moving about, especially on ascending stairs, she was seized with it, and considerable difficulty of breathing. She had no pain, and perspired only a little at night on the sternum. She felt a sinking at the pit of the stomach, with weariness, and wandering pains between the shoulders. Her pulse was weak, tongue clean, and her general functions regular. Her strength had declined much of late, and her appearance announced great languor and delicacy of constitution, the form of the chest being flat. She had dark eyes and hair, and a fine white skin. She stated that none of her family had died of consumption. I had ascertained, however, that her father died of that disease. Her mother had also informed me that Mrs. A., about seven years ago, had a severe attack of inflammation of the bowels, and ever since she has been delicate, and latterly, in the winter months, she had observed her to be troubled with a hacking cough. Percussion over the right infra-clavicular space elicited a duller sound than it did over the left side, and the costal elevation and expansion were distinctly limited under the right clavicle.

The respiratory murmur over the same space was harsh and tubular, with loud and prolonged expiration; the same physical signs were well marked in the right supra-scapular fossa. Percussion over the left side, posteriorly, elicited a much duller sound than over the right side, and the respiratory murmur was very weak, being in spots nearly inaudible; still, on a full inspiration, the vesicular murmur was developed, although imperfectly.

“Dr. Hastings examined her also on the 7th of March, 1843, and he, too, pronounced her disease to be phthisis. I afterwards sent her to be examined by two eminent hospital physicians, both authors, and acknowledged stethoscopists. The first wrote as follows:—‘I think there is obstruction in the left lung, most probably crude tubercles. March 7th, 1843.’ The second wrote:—“I find collapse and dulness below right clavicle, with decidedly tubular breath-sound and voice. There certainly are tubercles at the apex of the right lung. March 10th, 1843.’

“On the following day I put her under the naphtha treatment, commencing with ten drops three times a-day, which were gradually increased until she took sixty drops three times a-day. As this dose caused some cerebral disturbance, the dose was diminished to forty drops three times a-day. She came to me once every week, evidently improving. On the forty-second day of

the naphtha treatment I again sent her to the physician who last examined her, namely, on March 10, 1843; he wrote:—‘There is still considerable collapse and tubular phenomena, with dulness at the apex of the right lung, but the constitution seems much improved. April 21st, 1843.’ On May the 8th, 1843, I examined her carefully, and found the collapse at the apex of the right lung much less evident, the costal elevation and expansion being more free. Percussion produced a clearer sound; the tubular breathing was less, there being only a little roughness under the right clavicle, with rather loud expiration; the tubular breath-sound in the right supra-scapular space had nearly been replaced by a rough vesicular murmur. Percussion, posteriorly, elicited dulness, which was nearly alike on both sides; and vesicular respiration, although weaker than natural, was perfectly established in the left lung posteriorly. Altogether her health had improved vastly; her cough had long entirely left her, and she could ascend quickly a flight of steps without experiencing her former shortness of breath. She expressed herself as being quite well, and wished to abandon the naphtha. As physical signs of disease, however, still lingered, she was persuaded by me to continue her medicine up to the present period, when I minutely examined her, on October 3rd, 1843, and could only detect very slightly tubular

breathing under the right clavicle, with very little dulness, and the vesicular murmur was very satisfactory in those spaces where it had been formerly abnormal. She said, 'I am as well as ever I was in my life.'

"I had two patients who gradually augmented the dose of naphtha until they took four drachms in the twenty-four hours, but who, after a few days, were obliged to diminish the quantity. Mrs. A. still continues taking forty drops of naphtha three times a-day, and she always feels better while taking it. She has left it off for a week at a time on two or three different occasions, but she always, about the end of a week, felt worse, being attacked with lowness of spirits, and sinking at the pit of the stomach, and shortness of breath. On the second day, after resuming the naphtha, she felt a decided improvement in her health, and a rapid relief from all her unpleasant symptoms. I am anxious that she should continue her medicine whilst any signs of disease remain, although, for the last six weeks, I think the physical signs have been stationary, and I believe they will remain so. I am disposed to agree in opinion with Dr. Hastings, who states, in his work on Consumption, that he believes the periphery only of crude and enlarged tubercles can be acted on by the absorbents; the central portion of the unorganised mass, being too far removed

from their influence, may, therefore, remain for an indefinite period innocuous, similar to other foreign bodies, surrounded by their cysts."

The following highly interesting case was given to me by a most respectable practitioner in London, and, although he has not appended his name to the case, he permits me to refer any professional man to him who may wish for further details:—

CASE XVI.

"A lady, ætat. 29, enjoyed good health until about three years ago, when she suffered from a severe attack of influenza, from which she recovered slowly. She had since complained of occasional costiveness, frequent headache, and more or less breathlessness.

"One morning in December, 1843, on rising, she found herself unable to articulate distinctly, and the tongue, whenever protruded, inclined to the left side. For these, and other symptoms of slight paralysis of the right side of the face, she was subjected to a variety of treatment, which afforded no relief, until she was put under the influence of mercury, when they disappeared, but left her extremely weak; and, notwithstanding the use of *inf. calumb.*, *zinci. sulph.*, *mist. ferri. comp.*, and other tonics, her powers continued to

decline ; the pulse continued pretty steadily at 108, very weak and compressible, though in her usual health only 64 ; the bowels continually required aperient medicine, but the appetite was tolerable, and the tongue clean. She was so enfeebled that she could neither walk nor stand without assistance, and after the smallest exertion felt quite exhausted ; she was worn down completely to a skeleton ; the eyes were much sunk, with intolerance of light ; constant pain was experienced at the vertex, and the slightest noise occasioned headache ; she suffered frequently from breathlessness, which generally came on about break of day.

“ Besides these symptoms, she had a slight, dry, hacking cough, caused by a tickling sensation in the larynx, and a feeling of tightness in the upper part of the chest ; the skin always felt relaxed, and on waking in the morning she usually was in a cold clammy perspiration ; besides the medicines above specified, she took, after the mercurial course, sarsaparilla and sulphur, with lenitive electuary as an aperient, two or three times a week, and the flesh-brush was also used daily ; but, as far as I could judge, without any beneficial result.

“ Such was her state on the 8th of April, 1844, which gave rise to fears of phthisis. On examining her chest with the stethoscope, *very distinct pectoriloquy was discovered above, and, to the*

left side of the right mamma, the respiratory murmur was loud and harsh all over the chest, and the sound on percussion was duller below the right clavicle than below the left.

“The opinion of all those who saw her professionally was, that she could not last long, and that phthisis would soon show itself in a more unequivocal form ; at this period, naphtha was resorted to as a last resource, though it is but fair to add, that she continued taking *mist. ferri. comp.*, ʒj.; *tinct. digital*, *m* vij.; *ter in die*. Of the naphtha, she took at first *m* v., which were in four or five days increased to *m* x. *ter in die*. In about ten days its effects were apparent, none of the unfavourable symptoms had left her, but several of them were much ameliorated ; she was generally stronger, her appearance was less emaciated, the appetite was certainly improved, the nocturnal perspirations less, the pulse was under 100, and the dry cough still much the same ; for the latter she took linseed tea and other demulcents, and, in addition to the frictions with the flesh-brush, the chest was sponged with vinegar and water.

“This improvement went on gradually till the middle of July ; she had then considerably regained her health, the cough, night sweats, and tightness of the chest had disappeared, and *pectoriloquy* was less evident, she had recovered flesh to a great degree, and was able to walk

without assistance, though rather dragging the left leg, and to enjoy a drive in a carriage with easy springs. The breathlessness, heat at the vertex, and headache, still now and then annoyed her, but were much diminished. She had continued the naphtha steadily all this time; the *mist. ferri. comp.* and *digitalis* had been left off about a week after taking the naphtha, and about a fortnight after that the pulse sunk to its natural beat of 64.

“It was now deemed advisable to try change of air, for which purpose she left home in a carriage, travelling a few miles per day, resting at intervals at the sea-side, and thus spent August and September, still persevering in taking daily 3ss. of naphtha, and was returning home, freed from almost all her ailments, except a preternatural necessity for fresh air, when an accident suddenly terminated her life.

“A post-mortem examination was instituted, and, except extravasation of fluid blood under the arachnoid, caused by the accident, nothing abnormal was found in the brain, or to which the paralytic symptoms could be ascribed.

“A number of distinct tubercles, of various sizes, were found in the superior portion of both lungs, the largest only equalled the size of a small filbert; this was filled with hardened tuberculous matter of a rather blackish colour. Others about the size of peas were of a semicalcareous state,

and amongst these were *scattered a number of distinct small cicatrices, at least a dozen in each lung*, oblong in shape, of varying length, the average being about three-quarters of an inch, some of these occupying the region where pectoriloquy had been detected in April. The inferior portion of both lungs were healthy.

“The bronchial glands were enormously enlarged, one or two reaching the size of pigeons’ eggs; their substance resembled cartilage, and was of a blackish colour. This would satisfactorily account for the breathlessness from which she suffered.”

CHAPTER IX.

The following cases were published in the first edition of this work:—

I have thought it better on the whole to republish these cases, rather than replace them with recent ones, believing they would best refute the statement that my cases had undergone only a temporary check, which would speedily be followed by a return of the disease and consequent death. It is now upwards of two years since many of them were treated, and a reference to the notes appended to each will show the result.

CASE XVII.

Charles Taylor, a single man, *ætat.* 18, residing at 14, Wells Street, Oxford Street. Shortly after his birth he was deprived of his mother's care, who fell a victim to consumption, since which time he has lost a brother from the same disease. At the period of his presenting himself to the Dispensary, on the 13th October, 1842, he was following the trade of a copper-plate printer. For several years previous to his application for relief, he had suffered from cough and difficulty of breathing, for which he had frequently sought medical advice, and of late had considerably wasted in flesh. His general appearance was unhealthy, his frame weak, his complexion dingy, his circulation a little accelerated, his cough was

attended with considerable expectoration, and difficulty of breathing was experienced in all attempts at muscular exertion, especially on going up stairs. The appetite was tolerably good, and the bowels regular; the movements of the superior portion of the chest were confined, particularly on the right side, where the sound from percussion was very dull, and the respiratory murmur in places absent. Percussion applied to the left side anteriorly and superiorly yielded a better sound than when over the same space of the opposite side. The respiratory murmur was rough, and inspiration performed with jerks, and in both sub-clavicular regions the sounds of the heart were very distinct. The treatment adopted up to December 3rd comprised hydrocyanic acid and preparations of iodine, without any appreciable benefit. Ten drops of naphtha in a tablespoonful of water were then administered three times a-day. At the expiration of a month a decided improvement was evident, both on percussion and auscultation, and the dose of naphtha was doubled. A week afterwards, the inspiration was no longer performed with jerks; relaxation of the bowels had occurred on the previous day, but was attributed to his having eaten pork, which had often before affected him in the same way. Up to January 19th, the only unfavourable symptom which occurred was that of soreness of the throat, which lasted for two days; while the cough and expectoration had diminished, the sound on percussion had become clearer, and the respiratory murmur improved. This state of things continued until February 11th, when it was quite apparent he had gained strength. In addition to the internal use of naphtha, the inhalation of that agent was now put in practice, which proved beneficial, for in a few days there was very little cough, expectoration, and difficulty of breathing, and the results of percussion and auscultation were more satisfactory. On April 9th, up to which time I take my leave of the case for the present, the cough and difficulty of breathing had entirely disappeared, and he had gained both flesh and strength; and although there was still slight expectoration, the sounds of the chest were almost natural.

[Taylor has applied to me once since the publication of his case, about a year ago, in consequence of a little cough, which rapidly gave way to a repetition of the treatment; since which period he has enjoyed excellent health. He continues to reside at 14, Wells Street.]

CASE XVIII.

Ann Simmons, a single woman, ætat 24, residing at 6, Titchfield Street, Soho, who has lost father, mother, and one brother from consumption, was admitted under my care on January 29th, 1843. For the last three or four winters she had suffered from cough, and repeated attacks of inflammation of the bowels during the same time. Her cough had been very severe for the last three or four weeks, and great emaciation had taken place; her pulse were 80 and weak, appetite and bowels irregular, and pain was experienced after meals at the pit of the stomach. Percussion yielded a duller sound over the right anterior superior region than over the left; the respiratory murmur over the right clavicular region was nearly inaudible, and, when distinguished, it was both feeble and harsh. Over the same region, on the other side, it was puerile. The sounds of the heart were much more distinct over the right clavicular region than over the left. Twenty drops of naphtha were ordered to be taken, in a tablespoonful of water, three times a-day. Eighteen days afterwards considerable amendment was evident, and, in addition to the internal use of naphtha, it was directed to be inhaled three times a-day. On the fiftieth day the cough was diminished, and the appetite good. Percussion yielded a good sound on the right side, and the respiratory murmur had become distinct, whilst its puerile character, on the other side, was less. The bowels, however, were confined, and towards night the legs swelled. She had been residing with a brother at Croydon during the last fortnight, as the one in town she had been living with could no longer render her support. To correct the state of the bowels, some aperient pills were administered. On the sixtieth day the cough and expectoration had almost disappeared; the palpitation was sometimes troublesome, but she had gained both flesh and strength, and natural sounds were the result of percussion and auscultation. For the purpose of relieving the palpitation, she was directed to take two grains of the hydriodate of potash with each dose of the naphtha. On May 6th, being the hundredth day of her placing herself under my care, she had neither cough, expectoration, or difficulty of breathing, and, considering herself well, ceased to visit me.

[Although I have been unable to learn the present residence of this patient, I accidentally

heard, about three months ago, that she was married and had become a mother.]

CASE XIX.

Eliza Dunn, a married woman, ætat. 27, residing at 14, James Street, Camden Town, had lost two of her sisters from consumption, and was admitted under my care March 2nd, 1843. She had two children living, was now pregnant, and had been subject to frequent miscarriage. During the winters of the last nine years she had been attacked with cough, and had found that it increased during pregnancy. Cough, expectoration, and difficulty of breathing were severe, and though her general health was good, she had wasted considerably in flesh, which was the more immediate cause of her seeking medical relief. Percussion elicited rather a dull sound over both clavicular regions, where the respiratory murmur was harsh. After taking fifteen drops of naphtha three times a-day, for seven days, she was very much better; for the cough and expectoration had subsided, and the respiratory murmur had improved, and percussion yielded a dull sound only at the external end of the left clavicle. On March 30th, being the twenty-eighth day of her using the naphtha, she was quite well, and the signs from percussion and auscultation were natural.

[After diligent inquiry, I have failed to learn any particulars relative to the health or residence of this patient.]

CASE XX.

Maria English, aged nineteen, a married woman without family, residing at 22, Pitt Street, Tottenham Court Road, was placed under my care November 18th, 1842, for a neuralgic affection of the face. After relief from this disease, she stated that, for the last three years, she had suffered at intervals from cough, expectoration, and difficulty of breathing, accompanied with palpitations and cold nocturnal perspirations, which had latterly become unusually excessive about the arm-pits. As far as she knew, the members of her family were healthy. During the last month, or six weeks, rapid emaciation had ensued. The pulse were now 96, small, and weak; the appetite tolerable; the

bowels were confined, and the *catamenia* irregular. A dull sound was the result of percussion over both sub-clavicular regions, and the respiratory murmur indistinct where the heart-sounds were clearly audible. After the lapse of twenty-one days, from the use of naphtha, in fifteen drop doses, three times a-day, the cold night perspirations had disappeared, but improvement had not otherwise manifested itself. On the twenty-fifth day the expectoration had diminished, and the respiratory murmur over the right sub-clavicular region had improved. On the thirty-second day the cough and expectoration had evidently become less, but the palpitation continued, for the purpose of removing which a grain of the hydriodate of potash was added to the naphtha. This had the desired effect, but produced sickness, and an increase of cough and expectoration. A drop of hydrocyanic acid was in consequence added to each dose of the naphtha, and the hydriodate of potash discontinued. On the thirty-ninth day the sickness had disappeared, and the cough, expectoration, and difficulty of breathing were much better; percussion afforded a clearer sound, and the respiratory murmur was distinct throughout the upper part of the chest, although it possessed a harsh character. On the fifty-first day the cough and expectoration, which had been on the increase for several days, was very harassing, accompanied with severe headache, palpitation, and sickness, which proved to be the effect of a week's use of one of the noxious naphthas. A rapid improvement manifested itself on using the right naphtha, which continued until the fifty-sixth day, when, owing to an alarm she experienced on the previous day, from two men rushing into her room, and calling fire, the cough and expectoration immediately increased. She had inhaled the fumes of naphtha for the last two days, and though it had caused a little faintness, which was unusual with her, she invariably breathed with more freedom for some hours after. From this period to the eighty-seventh day she had much improved; but in consequence of a return from the palpitation, the hydriodate of potash, combined with the naphtha, was again prescribed. On the ninety-fourth day she had little or no cough, and on April 2nd, being the one hundredth and first day from the commencement of the naphtha treatment, all symptoms connected with the disease in the chest had disappeared, and the only inconvenience of which she complained was debility. An accidental circumstance brought me in contact with this patient on June 5th, when, to use her own expression, she never enjoyed better health in her life.

[Mrs. English still lives at 22, Pitt Street ; I have repeatedly seen her during the last two years ; her health continues excellent.]

CASE XXI.

Amelia Harris, a married woman of several years' standing, without family, aged 29, residing at 10, Cross Street, Newton Street, Holborn, consulted me on March 7th. It appeared that her family were remarkably healthy, but that, about twelve months ago, she spat blood, which, for the last fortnight, had recurred several times, and to a greater extent. During several winters she had suffered from cough, which of late had been very troublesome, and accompanied with severe colliquative night perspirations, expectoration, difficulty of breathing on the slightest muscular exertion, and rapid emaciation. The bowels were regular, and the appetite bad ; and though the *catamenia* were correct as to time, they were deficient in quantity. Over the right and left clavicular regions, percussion elicited a dull sound, which was somewhat less in intensity on the right side. The respiratory murmur on the right side was harsh, whilst on the left it was almost inaudible. The usual dose of naphtha having been administered, at the expiration of the seventh day the cough, expectoration, and night perspirations had manifestly improved ; on the twenty-eighth day they had entirely subsided ; she had gained considerably in flesh. The previously dull sound, and unhealthy respiratory murmur emitted from the chest, had become almost natural, and the heart-sounds could be but faintly heard. In fact, so satisfactory were all the signs of returning health, that she was discharged as cured. The desire of placing under my care a poor consumptive friend, who had watched from day to day with the most intense interest the progress of her cure, called my attention again to her condition on June 24th ; her health was then perfectly re-established.

[Mrs. Harris, with the exception of a fractured arm, occasioned by a fall during the late winter, has been perfectly well since she was under my care. She has not changed her residence.]

CASE XXII.

Ann Davidson, of 12, Upper Rathbone Place, 35 years of age, and married, related the following account of herself, when admitted under my care on December 27th, 1842:—Her family were not healthy, her father having died from asthma, and a brother from consumption. During her *accouchement*, which occurred two months ago, she took cold, and cough and expectoration were the immediate consequences, and cold perspirations, which generally came on during the evening, then followed. Loss of flesh, and an impeded respiration, particularly on ascending a staircase, joined in the train of symptoms; the cough became severe, the pulse rather quick but weak, the tongue white, and there was but little indication of an appetite. The bowels were regular. Below the right clavicle the sound was dull, and the respiratory murmur marked by the dry crackling *râle*; while, on the opposite regions, the one was clear, and the other puerile. Naphtha, in a tablespoonful of water, as usual, was prescribed in this case. On the fourth day the cold perspirations ceased, the cough and expectoration diminished, the appetite improved, and the tongue appeared clean. The dose of naphtha was now increased; and on the eleventh day the cough, expectoration, and difficulty of breathing were so slight, that she did not require my opinion to convince her of her amendment. The dulness was rapidly disappearing on the right side, and the dry crackling *râle* was no longer to be detected, a harsh respiratory murmur having occupied its place. On the twenty-eighth day the general improvement had so steadily progressed, that she experienced but one slight shock, that of a cold perspiration on one occasion. On the thirty-sixth day her cough was very slight, and she had entirely lost the expectoration and difficulty of breathing. The appetite was good, the sound was clear, and the respiratory murmur healthy throughout the walls of the chest, except over a small space at the outer end of the right clavicle. From this period until April 6th, being the sixty-first day since she first took the naphtha, I had not an opportunity of watching, so closely as I could have wished, the progress of her recovery; for, feeling herself well, she had neglected to appear at the Dispensary. Many similar cases of this kind subsequently occurred. She was in very good health, free from cough, expectoration, and difficulty of breathing, and was strong and fleshy.

[Mrs. Davidson for the last two years has been

quite well, she still resides at 12, Upper Rathbone Place.]

CASE XXIII.

Maria Cuthbert, a single woman, aged 18, residing at 15, Foley Street, Foley Place, was admitted under my care on October 12th, 1842. For the last twelve months she had suffered from cough and slight expectoration, with considerable difficulty of breathing, and severe nocturnal perspirations, and of late had become much emaciated. About six weeks ago she lost her voice, which she had not regained. The bowels and *catamenia* were irregular, and the appetite uncertain; her spirits were depressed, and her constitutional powers prostrated. It did not appear that any member of her family had been consumptive, or particularly unhealthy. There was dulness of sound over the superior part of the chest, both anteriorly and posteriorly. The respiratory murmur over the right clavicular region was feeble and harsh, and it had the same character, but in a lesser degree, over the left. The sounds of the heart were very distinctly heard over the right clavicular region. She was subjected, without the least sign of amendment, to a variety of treatment which comprised counter-irritation, expectorants, absorbents, and aperients. On December the 3rd, she commenced taking the naphtha, in ten-drop doses; but the only amelioration, at the end of the forty-second day, that she experienced, was the recovery of her voice, while she complained of pain in various parts of the chest and head. The naphtha was now increased in dose. On the fifty-second day the cough gradually abated. On the sixty-fourth day, however, the cough and expectoration had increased, and she had again lost her voice. The full dose of naphtha, namely twenty drops, was then administered, and the symptoms, in a few days, changed for the better; and at the end of a week, cough and expectoration had ceased, and the voice was restored. On June the 1st, being the one hundred and seventy-first day since the treatment with naphtha commenced, she had neither cough, expectoration, or difficulty of breathing. Percussion yielded a natural sound throughout the walls of the chest, and the respiratory murmur was of a healthy character.

[I cannot learn Maria Cuthbert's residence; about a year ago she consulted me for an attack

of dyspepsia, and was then free from pulmonary disease.]

CASE XXIV.

Sarah Smith, a single woman, ætat. 22, residing at 14, Lass Place, Bloomsbury, was admitted under my care on February 28th, 1843. She was not aware that any consumptive taint existed in her family. She had always enjoyed good health until last summer, when she was seized with a severe attack of indigestion. This was shortly followed by cough, expectoration, and difficulty of breathing, which had not yet left her. For the last two months she had been harassed with nocturnal perspirations, and had recently lost much flesh. Her appetite was bad, bowels were irregular, and *catamenia* scanty, and she had *leucorrhœa* in addition to her other complaint. The chest was well-developed, but depressions below the left clavicle existed. A dull sound was apparent over the whole superior portion of the chest, and over the left clavicular regions; the respiratory murmur was in parts inaudible, as well as being feeble and harsh on both sides. The sounds of the heart were very loud over the same spaces. Ten drops of naphtha, in a tablespoonful of water, were ordered to be taken three times a day. At the end of twenty-one days, the cough, expectoration, and difficulty of breathing, were very much improved: the dose of the drops was doubled. On the forty-second day, the cough and expectoration had entirely disappeared, respiration was very slightly impeded on going up stairs, the appetite was natural, but pain was experienced after meals, accompanied with a sensation of fulness about the throat and stomach. The *leucorrhœa* had increased, and a solution of nitrate of silver, a grain to the ounce, was used every night in relief as an injection, and some tartar emetic ointment rubbed into the pit of the stomach, three times a day, until pustulous eruption should appear. On May 4th, the sixty-first day from the commencement of the naphtha treatment, she had neither cough nor any other symptom characteristic of disease of the chest; the pain after taking food, and the *leucorrhœa*, had disappeared, and she was rapidly gaining strength. A good sound was elicited by percussion, and the respiratory murmur was heard with rather less intensity than natural throughout the superior part of the chest. The state of her health was such, that it was no longer necessary to keep her as a patient. On the 17th of June, I met by accident this young

woman, carrying a heavy child in her arms ; she looked remarkably well, and declared she had never been better at any previous period of her life.

[Sarah Smith now resides at 46, King Street, Long Acre. She has been in service for the last two years, and continues well.

CASE XXV.

Ellen Webb, a married woman, ætat. 28, residing at 4, Exmouth Street, Hampstead Road, of a healthy family, was admitted under my care on the 18th February, 1843. She had enjoyed good health until about six years ago, when she was frightened by an alarm bell, the shock being so great, that it deprived her of reason for three months, and her ultimate recovery was very gradual. She had just weaned her child, after twenty-one months' nursing, during the last three months of which the *catamenia* were regular. Lately she had lost much flesh, and become very weak. For the last fortnight she had suffered from cough and difficulty of breathing, with cold nocturnal perspirations, and wandering pain in various parts of the chest, accompanied with palpitation, fainting, and flatulence. The bowels were regular, and the appetite pretty good. Her eyes and hair were dark brown, and her skin sallow. Her chest was well formed. Percussion yielded a dull sound over all the superior portions of the chest, more particularly over a small space below the centre of the left clavicle, where the respiratory murmur was scarcely audible, while over other spaces it was feeble and harsh. The heart sounds were very distinct over the right clavicular regions. Fifteen drops of naphtha, in a table-spoonful of water, were ordered for her, three times a-day. Twelve days afterwards, the cough and difficulty of breathing had diminished, and the nocturnal perspirations had disappeared after the second day of taking the medicine. On the 26th day, the cough had entirely ceased. Inspiration was performed with jerks over the left clavicular regions, and the cold perspirations had reappeared. At the end of the forty-fourth day, her cough and difficulty of breathing had returned, accompanied with violent palpitation, which was attributed to her singing in chapel on the previous Sunday, as up to that instant she had remarkably improved. On the fifty-first day, however, the cough and difficulty of breathing had ceased again, but the palpitation continued, with

flatulence and pain after meals. By means of auscultation, there did not appear to be any structural disease of the heart. A better sound generally was the result of percussion, and the respiratory murmur was marked by less harshness. Tartar emetic ointment was ordered to be rubbed over the pit of the stomach, for the purpose of producing counter-irritation, in order to relieve the dyspepsia. On the ninetieth day, the only complaint that remained was that of palpitation, which she stated was invariably brought on by the least excitement. On the 11th of June, being the one hundred and seventh day of the naphtha treatment, she was quite well. Percussion yielded a natural sound throughout the walls of the chest, and the respiratory murmur was healthy.

[Mrs. Webb has several times sought my advice since the publication of her case, once or twice for cough, but more frequently in consequence of dyspepsia; these attacks speedily disappeared under appropriate treatment. About a year ago she was confined with a fine boy. She is now in fair health, and resides at 34, Little Clarendon Street, Clarendon Square.]

CASE XXVI.

Eliza Elliot, a single woman, aged twenty-three years, residing in Cirencester Place, Portland Place, was admitted under my care the 23rd of March, 1843. Her father and sister were victims to consumption. For several winters she had cough, but the last winter it had been unusually severe, and was now accompanied with considerable expectoration, difficulty of breathing, and palpitation. During the last month she had much wasted. The appetite was tolerable, the bowels were regular, and the *catamenia* healthy; she did not suffer from indigestion. Over the right clavicular regions there was a dull sound, and the respiratory murmur was feeble and harsh; while over the same regions of the opposite side, the one sign was clear and the other puerile. The sounds of the heart were loud over the right side. Twenty drops of naphtha, in a tablespoonful of water, containing two grains of hydriodate of potash, were ordered to be taken three

times a-day. After a lapse of fourteen days, the cough, difficulty of breathing, and palpitation had considerably diminished. As the bowels were confined, two aperient pills were taken occasionally. By the twenty-eighth day the cough, expectoration, and difficulty of breathing had entirely disappeared, and she had gained strength; the respiratory murmur, and the sound from percussion being almost natural.

[This patient was seized with cough, expectoration, and difficulty of breathing, in the beginning of last autumn, and applied to me for assistance; the symptoms gradually subsided, and she is now in good health.]

CASE XXVII.

Thomas Howell, a married man, *ætat.* 22, residing at 16, Foley Street, Foley Place, of a consumptive family, his father, brother, and five other members of his family having died during the last twelve months from pulmonary consumption, and a sister being now confined to her bed from the same cause, consulted me for the first time on March 24th, 1843. He was following the trade of a shoemaker. About two months ago he caught cold while riding at night outside a coach from Cheltenham to London. This was followed by cough, which ceased in the course of a week; leaving, however, a little shortness of breath. The cough returned a fortnight ago, without any apparent cause, which had daily grown worse, and a rapid loss of flesh and considerable debility was the direct consequence. His general health, which had always been excellent, remained unimpaired, and the only other complaint he had to make was a little dimness of vision, which he had suffered from, more or less, since childhood. The chest was well formed, although its motions were somewhat restricted, and the clavicles were unusually bent outwards. A dull sound was the result of percussion over all the superior regions of the chest, and the respiratory murmur was generally feeble and harsh over the same spaces. The sounds of the heart were very distinct below the right clavicle. After taking naphtha for seven days, the cough had ceased to trouble him, and the sounds of the heart were scarcely audible below the right clavicle. At the end of fourteen days, he had no complaint to make, and was growing stouter and stronger;

percussion yielded a clear sound over the whole of the upper part of the chest, the respiratory murmur was much improved, and the sounds of the heart were inaudible below the clavicle. On April 27th, being the thirtieth day of the naphtha treatment, he enjoyed excellent health. Percussion continued to yield a natural sound, and the respiratory murmur was slightly harsh below the left clavicle.

[This patient has maintained uninterrupted good health since the publication of his case. He still resides at 16, Foley Street.]

CASE XXVIII.

Hannah Clements, a married woman, ætat 28, residing at 16, Noel Street, Oxford Street, commenced the naphtha treatment on February 8th, 1843. She had lost her father from asthma, and a sister was then dying from consumption, her eldest child being at the same time a martyr to scrofula, and under my care. She was by trade a waistcoat maker, had led a very regular life, and had been troubled with cough and expectoration during the last three winters, but had been much worse this winter than any preceding one; the expectoration was very considerable, and the difficulty of breathing very distressing. For several weeks she had been deluged with nocturnal perspirations, and her loss of flesh and debility were very apparent. The bowels were sometimes relaxed, and at other times confined; the appetite was very bad, and she suffered from nausea as soon as she tasted food; the *catamenia* were irregular, and she had *leucorrhœa*. Her eyes and hair were of a dark colour, and the skin had a dirty yellow hue. The walls of the chest were greatly emaciated, with depressions above and below the clavicles. The sound was dull over all the upper parts of the chest. Where the respiratory murmur could be heard it was feeble and harsh, and below the right clavicle it was mostly inaudible, the dry crackling *râle* was there distinct, as well as the sounds of the heart. After taking the naphtha for twenty-one days, the cough, expectoration, and difficulty of breathing had considerably diminished, and the nocturnal perspirations had ceased. On the thirty-fifth day, farther improvement had taken place, the sound elicited by percussion was better, the respiratory murmur was distinct over all the anterior, posterior, and superior regions, and the sounds of the

heart less audible. Her general health was excellent, her appetite was good, and the comparison with her late condition so marked, that she observed, at no period of her life had she partaken of food with such a relish. At the end of the forty-ninth day, owing to a cold she had taken, a slight return of her cough and expectoration took place; but on the seventy-seventh day she had again improved in flesh and strength, her cough, expectoration, and difficulty of breathing had entirely subsided, and the signs both from percussion and auscultation had returned almost to the healthy standard. On June 15th, being the one hundred and twenty-seventh day after the commencement of taking the naphtha, she was well, having no complaint of any kind, except slight *leucorrhœa*.

[Mrs. Clements has not suffered from cough for the last two years; her residence continues to be at 16, Noel Street.]

CASE XXIX.

John Farmar, a single man, aged 35, and by trade a stone mason, residing at 2, St. James's Place, Hampstead Road, was admitted under my care January 23rd, 1843. At the commencement of last autumn he spat blood, which was followed by cough, expectoration, and difficulty of breathing, and more recently had severe night perspirations with great loss of flesh, which had rendered him unable to follow his employment, although he had previously been very robust; bowels very irregular and the appetite bad. Percussion afforded a dull sound over all the anterior and posterior superior regions of the chest, but was more strongly marked below the right clavicle, where the respiratory murmur was scarcely audible; over the other parts it was feeble and harsh. Fifteen drops of naphtha to commence with were prescribed in this case three times a-day. Five days afterwards, he had perspired but once, and the cough and expectoration had greatly diminished as well as the difficulty of breathing. At the end of the twenty-sixth day, he had experienced a return of all his former bad symptoms, in consequence of having re-commenced his work and given up his medicine, believing himself well. A renewal, however, of the naphtha treatment having been steadily followed for twenty-one days, he had not the least complaint to make of the symptoms for which he sought medical relief, and in consequence, he returned to his usual employment, which, I was ultimately glad to find, produced no ill effect.

[I have been unable to learn any particulars relative to this patient, he having left St. James's Place upwards of two years.]

CASE XXX.

Kesiah Narborough, a single woman, aged 20, following the occupation of a servant, was admitted under my care April 20th, 1843, her residence being at 11, St. Leonard's Street, Pimlico. The only member of her family, that she was aware of, who had died from consumption was an aunt. About a year back she was attacked with severe pain in the head and left side just below the region of the heart, accompanied with fainting and hysteria, and subsequently with cold nocturnal perspirations; a week since she spat blood, respiration being impeded by slight muscular exertion, particularly on ascending a staircase, by the presence of a slight hacking cough, and of late by a softening, as it were, of the flesh. She suffered from severe pain at the pit of the stomach after taking food, with loss of appetite, which was accompanied with palpitation. The bowels were irregular, and she had pain in the head, which was always augmented in the evening; *catamenia* appeared for the first time, and that but slightly, last week; the temperament was leucophlegmatic, the hair light brown, the eyes light blue, and the teeth good. The left side of the chest was better developed than the right, its motions were limited, and below the outer end of the right clavicle there was a considerable depression. Percussion yielded a dull sound over the entire upper part of the chest. The respiratory murmur was generally weak and harsh, and over the right clavicular regions the dry crackling *râle* was present, where the heart sounds were very distinct. Expiration was remarkably prolonged. Fifteen drops of naphtha in a tablespoonful of water were taken three times a-day, but as the medicine had not produced any good effects by the seventh day, the dose was increased to twenty drops, and a drop of hydrocyanic acid added to each. On the fourteenth day, five grains of the trisnitate of bismuth were directed to be taken three times a-day, and two aperient pills occasionally in addition to the drops. On the twenty-first day a general improvement was evident, and on the twenty-eighth day the night perspirations had ceased, the appetite was natural, and food could be taken without pain and palpitation. Her cough and

difficulty of breathing had all but disappeared ; the sound on percussion was much improved as well as the respiratory murmur. On June 3rd, being the forty-fourth day of the treatment with naphtha, the remedy was abandoned, and she pronounced herself in better health than for several years past, and considered that she was able to resume her duties as a servant.

[Kesiah Narborough is now performing the duties of a domestic servant to a family in the country, and is in the enjoyment of fair health.]

CASE XXXI.

Eliza Grace, a married woman, ætat. 34, residing at 82, East Street, Manchester Square, having lost her father, brother, and three sisters from pulmonary consumption, placed herself under my care on May 13th, 1843. Her health had been generally good, with the exception of slight attacks of indigestion, which she had suffered from for some years. During the last twelve months, she had several attacks of cough and hoarseness, but about a month ago the cough was accompanied with expectoration, difficulty of breathing, and excessive night perspirations, and a rapid emaciation of the body followed. The *catamenia* and bowels were regular, the appetite tolerable, the hair was light brown, and the eyes light blue. Percussion afforded a dull sound generally over the upper regions of the chest, the respiratory murmur was scarcely audible below the left clavicle where the dry crackling *rale* existed, but it was generally feeble and harsh. Fifteen drops of naphtha in a table-spoonful of water three times a-day were prescribed for her, and at the expiration of fourteen days, the cough and expectoration as well as difficulty of breathing had in a great degree given way, the nocturnal perspirations having disappeared after a few doses of the medicine had been taken. In the course of twenty-four days, little remained in the chest to complain of, excepting over the left clavicular regions, where percussion yielded a rather dull sound, and the respiratory murmur was feeble. The appetite was natural, and, to use her own expression, "She felt better after every dose of the medicine." On the fifty-second day she was in sound health, and the signs afforded by auscultation and percussion were natural.

[Mrs. Grace has enjoyed good health since she

was under my care, about two years ago. I had an opportunity of seeing her lately, and observed she had become stout, and looked remarkably well. She has removed to 1, Little Barlow Street, Marylebone.]

CASE XXXII.

Eliza Shepherd, a married woman, aged 41, residing at 39, Carnaby Street, Regent Street, consulted me on May 11th, 1843. Her father and several branches of her family had died of consumption. For some time, she had been troubled with cough and expectoration, attended with difficulty of breathing and nocturnal perspirations, and, during the last six weeks, had greatly fallen away. Her pulse was 80, and weak; her bowels constipated; there was great loss of appetite, and a sensation of pain at the pit of the stomach after meals. The *catamenia* were regular. The walls of the chest were very much attenuated; there existed considerable depressions in the neighbourhood of both clavicles, and on the left side the movement of expansion was hardly perceptible. There was a dulness of sound over all the upper regions of the chest, and the respiratory murmur was generally feeble and harsh, the sounds of the heart being very distinct on the right side. In order to correct the bowels, two aperient pills occasionally at bed time were prescribed, and the naphtha treatment in fifteen drop doses commenced. The night perspirations soon ceased. At the end of seven days the cough and expectoration had diminished, and the appetite had improved, but she complained of pain between her shoulders. The drops were now increased to twenty, and a mustard poultice applied between the shoulders. At the close of the fourteenth day she had greatly benefited in every respect, and possessed a good appetite. On the twenty-eighth day the cough, expectoration, and difficulty of breathing, had entirely left her, and the sounds, both from percussion and auscultation, were of a healthy character.

[The subject of the following case has been entirely free from phthisical symptoms since I

attended her in May, 1843. She has applied to me twice since that period, for the relief of stomach derangements. She now resides in Pimlico.]

CASE XXXIII.

Eliza Cullum, a single woman, aged 18, who had lost her father from consumption, sought my advice on April 20th, 1843. She had enjoyed very good health until within the last four months, when she experienced a sensation of tightness in the abdomen, followed by difficulty of breathing and nocturnal perspirations. It was not, however, until three weeks ago that she began to cough, since which time she had rapidly lost flesh. The pulse was 120, and small; and she had palpitation in a severe degree, which was brought on by the slightest emotion; the *catamenia* were healthy, the bowels were irregular, and the appetite bad, and she complained of great languor and debility. The movements of the chest were confined, and percussion elicited a dull sound over all the superior parts of the chest; but was more strikingly marked over the right clavicular regions, where the respiratory murmur was scarcely audible. Over the same regions, on the left side, it had a puerile character. The heart sounds were very loud on the right side. Two drachms of naphtha, with a drachm and a half of the tincture of digitalis, were prescribed as a mixture, to be taken in doses of twenty-five drops in a tablespoonful of water, three times a-day. At the end of fourteen days she had generally improved, and the pulse was reduced to 80 per minute. The naphtha was now increased to twenty drops, and the digitalis was dispensed with on the twenty-eighth day, which was the period of her next visit. She informed me that the cough and difficulty of breathing had for some time disappeared, and her appetite had from day to day improved, and was then natural. The signs from percussion were greatly improved, and the respiratory murmur had lost in a great degree its puerile character on the left side, and become more distinct and healthy on the right.

[This patient now resides in the country, and is in the enjoyment of excellent health.]

CASE XXXIV.

Elizabeth Swaine, aged 23, residing in the Commercial Road, Whitechapel, of a decidedly healthy family, according to her own account, consulted me on April 21st, in consequence of her having a cough, difficulty of breathing, and nocturnal perspirations, which made their appearance about two months since. During the last month she had lost flesh rapidly. The bowels were irregular, she had no appetite, and complained of a severe pain at the pit of the stomach after taking food. The *catamenia* were irregular. Percussion yielded a dull sound over the entire upper part of the chest, where the respiratory murmur was generally weak and harsh, but in places inaudible, particularly below the left clavicle. The heart sounds were unnaturally loud over the spaces enumerated, which exhibited considerable depressions. She was ordered a drop of hydrocyanic acid in a little water three times a-day, and some tartar emetic ointment to be rubbed into the pit of the stomach three times a-day, until pustules appeared. In ten days the symptoms of indigestion were removed; in other respects, however, no improvement had been effected. Twenty drops of naphtha were now prescribed to be taken in a tablespoonful of water three times a-day, and inhalation at the same time was had recourse to. After the thirty-first day, the cough and difficulty of breathing had almost disappeared, the appetite was natural, and the bowels regular. The sounds of the chest were greatly improved, and also the respiratory murmur. At the expiration of the forty-fifth day from the time of commencing the medicine, she felt very much improved in all respects, and was daily growing stronger.

[Of the state of this patient's health I am unable to give any information.]

CASE XXXV.

Margaret Lee, a married woman, aged 27, of 47, Stanhope Street, Clare Market, informed me, on her admission as a patient, on May 4th, 1843, that, as far as her knowledge of her family history extended, the only member of her family who had died from consumption was her brother. For the whole of the past winter she had cough, expectoration, difficulty of breathing, and nocturnal perspirations, and for the last month had rapidly wasted and lost

strength. The *catamenia* and the bowels were natural, the appetite was deficient, and some pain at the pit of the stomach was experienced after meals, attended with flatulence and palpitation. A dull sound was generally the result of percussion over the superior regions of the chest, and the respiratory murmur was there feeble and harsh, while below the right clavicle a dry crackling *râle* was distinct. The heart sounds were loud over the right side. The fourteenth day having arrived, after taking fifteen drops of naphtha in the usual quantity of water, the cough and perspirations had subsided, the difficulty of breathing had diminished, the appetite had improved, and the signs from percussion and auscultation were now satisfactory. The dose of naphtha was increased to twenty drops. In the course of the thirtieth day after the employment of the naphtha, the symptoms enumerated were removed, and the chest sounds and respiratory murmur were of a healthy nature.

[Mrs. Lee emigrated to America about twelve months ago ; at that period she was very well.]

CASE XXXVI.

Jane Collins, a single woman, aged 50, residing at 65, Oxford Street, was admitted under my care on April 1st, 1843. She believes her family to have been hitherto free from consumption. For some years during the winter she suffered from cough, which had been worse this winter than any preceding one ; attended with loss of flesh, expectoration, difficulty of breathing, nocturnal perspirations, and a sensation of heat about the palms of the hands and soles of the feet. The appetite was bad, and the bowels irregular. The anterior superior regions of the chest yielded throughout a dull sound from percussion, particularly below the right clavicle. The respiratory murmur was generally harsh and feeble, and the sounds of the heart were loud over the right clavicular region. After using the naphtha treatment, in twenty drop doses three times a-day, for forty-two days, the expectoration and difficulty of breathing had wholly disappeared. The appetite was natural, and the bowels regular, and the cough was so slight, that, to let her speak for herself, she was only aware of its existence when questioned upon the subject. She felt daily that she was gaining both flesh and strength. Percussion yielded a good sound over the left side, but rather a dull one over the right, where the respiratory murmur was a little harsh. The sounds of the heart were scarcely

audible over the right side. The nocturnal perspirations and other symptoms of hectic fever had subsided for the last six weeks. She had inhaled the naphtha, as well as taken it internally, during the last fortnight. At the expiration of the fifty-sixth day of the treatment with naphtha she was quite well.

[This patient now resides at Exeter ; she consulted me about a year ago, for a catarrhal affection, which speedily yielded to ordinary treatment.]

CASE XXXVII.

Jane Delacourt, a married woman, aged 30, of 5, Market Street, having lost a father from asthma, and a brother from decline, consulted me on May 18th, 1843. When she was nineteen, she had an attack of inflammation of the bowels, through getting wet-footed ; she had also occasionally suffered from severe pains in the head, which subsequently occurred several times. For the last six winters she had been subject to cough and expectoration ; but this winter these symptoms had recurred with more than usual severity, attended with severe pains in the head and arms. During the last six weeks she had lost flesh, and suffered from nocturnal perspirations, and the sensation of heat in the palms of the hands and soles of the feet was very troublesome. More recently the difficulty of breathing had increased, with pain between the shoulders, the bowels alternating between relaxation and constipation. The appetite was impaired, and more or less pain was experienced after meals at the pit of the stomach. The *catamenia* were natural. A *wooden* sound was the result of percussion over the left clavicular regions where the respiratory murmur was feeble and harsh. Expiration was prolonged, and the heart sounds were generally loud over the whole of the superior part of the chest. Nine days elapsed after administering the naphtha before she again visited me ; when considerable improvement had manifested itself, the nocturnal perspirations had subsided for some days, and the cough and expectoration had considerably diminished. At the end of the sixteenth day a further amendment was evident, and percussion yielded a much better sound, the respiratory murmur being almost natural throughout the chest. The drops were now increased to twenty each dose. On the twenty-sixth day all the symptoms of

the pulmonary affection had subsided; but she was suffering from a return of the pain in the head. The application of six leeches to the temples, and the taking of a teaspoonful of drops three times a-day, composed of tartar emetic two grains, tincture of digitalis a drachm, and water an ounce and a half, soon removed the pain in the head, and on the twenty-eighth day the naphtha was recommenced. At the expiration of the thirty-eighth day of the naphtha treatment percussion yielded a clear sound, the respiratory murmur was natural, and all those symptoms for which she sought relief having ceased to distress her, she withdrew herself from my care.

[Mrs. Delacourt has several times suffered from attacks of dyspepsia since the publication of her case, but she has had no return of her consumptive symptoms. She continues to reside at 5, Market Street.]

CASE XXXVIII.

Sophia Phillips, aged 12, residing at 18, Marshall Street, Golden Square, had lost several relations from consumption, and about six months back her father died from the same malady. She was placed by her friends under my care on April 6th, 1843. She had enjoyed good health from her birth, except on one occasion, when about two years old. She then suffered from an affection of the head. About eight months since, she first began to lose her appetite; this was shortly followed by cough, expectoration, difficulty of breathing, and loss of flesh, with a further decrease of appetite, irregularity of the bowels, and pain in the abdomen and limbs. The sound from percussion was dull over the right and left clavicular regions, but in a rather less degree over the former. The respiratory murmur was feeble and harsh, particularly over the dull regions on the left side. The heart sounds were scarcely audible below the right clavicle. Ten drops of naphtha in a dessertspoonful of water, three times a-day, were prescribed in her case, and hot turpentine applied, as long as the pain continued, to the seat of pain in the abdomen, until it became red, every other night. At the end of seven days the pain of the abdomen had ceased, and she had generally improved. After a lapse of twenty-eight days more, the cough, expectoration, and difficulty of breathing had entirely sub-

sided, the appetite was natural, and the only complaint she had to make was general debility. Percussion yielded a clear sound throughout the walls of the chest, and the respiratory murmur was healthy. She now considered herself well, and ceased to visit me. I, however, saw her again on June 21st, when she still continued to enjoy good health.

[This girl's family removed into some distant part of the country, since which period I have entirely lost sight of her.]

CASE XXXIX.

William Davis, a single man, and by trade a light porter, aged 36 years, residing at 66, Berwick Street, Soho, stated that, having left the place of his birth in Wales, many years ago, he was unable to give any particulars relative to his family having a bearing upon the question of a consumptive taint. For several winters he had been troubled with cough and expectoration, both of which had considerably increased of late, and attended with nocturnal perspirations, which were very severe. The palms of his hands and soles of his feet were often hot and dry. Difficulty of breathing, which was but slight a month or six weeks ago, had gradually become so severe, that he was obliged to leave his employment, and his emaciation was very great. The bowels were regular, but the appetite was bad. A dulness of sound was audible over all the superior regions of the chest, where the respiratory murmur was feeble, harsh, and in places inaudible. Below the centre of the left clavicle, a cavernous *râle* over a small space was distinctly heard, accompanied with perfect *pectoriloquy*. He was admitted under my care on January 19th, 1843, and the naphtha treatment in fifteen drop doses commenced. After a lapse of sixteen days, the cough, expectoration, and difficulty of breathing had diminished, the night perspirations, and other signs of hectic fever, had disappeared for rather more than a week, the appetite was natural, and a dry blowing respiration was well marked over the space occupied by the cavern. The dose of naphtha was now increased to twenty drops. On the twentieth day he had a return of all his former symptoms, owing to his getting wet, and allowing his clothes to dry on him. The cavern, nevertheless, below the left clavicle could hardly be detected. He informed me on the

twenty-seventh day, which was the next time I saw him, that the cough had disappeared for several days, and the expectoration had diminished. By the thirty-fourth day, a further amendment had evidently ensued, for percussion yielded a much clearer sound, and the respiratory murmur was improved. The cavernous *râle* was less distinct, and *pectoriloquy* could not be detected. Percussion elicited a good sound throughout the chest. The respiratory murmur was natural throughout the left lung, except at the apex; in the right it was generally healthy, and the motions of the chest were full on both sides. There was trifling expectoration, but not the slightest cough, nocturnal perspirations, or impediment of breathing.

[This man I have always watched with the greatest interest, as his was the first case I witnessed of cicatrization of a cavity in the lungs. He has had two attacks of cough and expectoration since the publication of his case, which readily gave way to the naphtha treatment. Upon the whole he has enjoyed good health, and is now very well, although he is seldom perfectly free from cough, at the same time it is too slight to be complained of. He continues to reside at 66, Berwick Street.]

CASE XL.

Maria Boyd, a married woman, without family, aged twenty-four years, and by occupation a dress-maker, residing at 29, Church Street, Soho, was admitted under my care on April 20th, 1843. During the last twelve months she had become much thinner, and for some time had suffered from cough, expectoration, difficulty of breathing, and nocturnal perspirations, which symptoms had been preceded by the spitting of blood. She was generally of a feeble constitution, her appetite bad, and usually subject to pain at the pit of the stomach after taking food, accompanied with flatulence and palpitation. The *catamenia* were healthy and the bowels regular. Above and below the clavicles there were considerable depressions,

particularly at their outer ends, and the motions of the chest were generally confined. Percussion elicited a dull sound over the whole of the upper regions of the chest, but which was more strongly marked about the right clavicle. The respiratory murmur was feeble and harsh, and in places over the right clavicular region altogether inaudible. Where the respiratory murmur was indistinct, the sounds of the heart were heard with considerable force. Fifteen drops of naphtha in a tablespoonful of water were administered three times a-day, and as no amendment had taken place at the end of seven days, the dose was increased to twenty drops three times a-day. To correct a constipated state of the bowels, which had of late existed, two aperient pills were recommended to be taken occasionally. On the fourteenth day she had become rather worse in regard to the symptoms in general, but the sounds on percussion were a little improved. A drop of hydrocyanic acid was now added to each dose of the drops, and tartar emetic ointment directed to be rubbed over the pit of the stomach three times a-day until pustules appeared. Still, at the expiration of the forty-second day, all the signs of the pulmonary disease continued unabated, with the exception of the sound from percussion, which was gradually becoming clearer; and it was not until the termination of the fifty-sixth day that a diminution had taken place in the cough, expectoration, difficulty of breathing, and nocturnal perspirations, and that the appetite had changed for the better. At the end of the sixty-third day, however, the desire for food was natural. Percussion elicited a much better sound, although the respiratory murmur was rather harsh. On July 13th, being the seventy-fourth day since the treatment by naphtha was commenced, she was perfectly well, and the signs both from percussion and auscultation were of a healthy nature.

[Mrs. Boyd continues to enjoy excellent health; she has removed to 23, King Street, Soho.]

CASE XLI.

Margaret Dennis, a married woman, aged 27, of 12, St. Ann's Court, Wardour Street, consulted me on the 20th of May, 1843. Consumption had committed frightful ravages in her family, her mother and fourteen near relations having died from the disease. She had enjoyed tolerable health until the last four months, when she was attacked with cough and expectoration, which was shortly followed by difficulty of breathing and nocturnal perspirations, and

during the last month she had rapidly fallen away. The pulse were 96, the bowels and *catamenia* were irregular, the tongue white and furred at the base, the appetite bad, and she suffered much pain at the pit of the stomach, as well as being troubled with flatulence and palpitation; the feet were generally cold; she was weak, and her spirits were much depressed. The motions of the chest were very confined, particularly those of expansion, which on the upper part of the left side were scarcely perceptible. All the superior regions of the chest yielded a dull sound on percussion; respiration was jerking during both inspiration and expiration, and the respiratory murmur was feeble and harsh over the above spaces, and the heart sounds were unusually loud. Fifteen drops of naphtha in a little water were ordered to be taken three times a-day. At the expiration of the twenty-eighth day scarcely a trace of the symptoms of her chest affection remained, and the nocturnal perspirations disappeared after a few doses of the medicine. The symptoms of indigestion remained the same. The drops were increased to twenty, two aperient pills were ordered to be taken occasionally, and tartar emetic ointment rubbed into the pit of the stomach three times a-day until pustules appeared. At the expiration of the forty-second day from the commencement of the naphtha treatment, the cough, expectoration, and difficulty of breathing had entirely subsided; the appetite was natural, and she was much stronger. Percussion elicited a good sound, the jerking character of the respiration had disappeared, and the respiratory murmur was more healthy.

[Mrs. Dennis has enjoyed excellent health since I attended her in 1843. She now resides at Barnstaple.]

CASE XLII.

Mary Maclaren, a married woman, aged 30, residing in Turk's Head Yard, Oxford Street, and of a remarkably healthy family, placed herself under my care on April 2nd, 1843. For some months she had attended upon her sick husband, who was dying from consumption, and, in consequence of his inability to work, had to exist for the last five or six months upon a very scanty allowance of nourishment. From infancy she had enjoyed good health, until within the last few months, when cough and expectoration came on without any apparent cause, which was followed by difficulty of breathing, night perspirations, and latterly by great prostration of

strength and wasting. Her bowels were regular, her appetite bad, but she had never suffered from indigestion. A dulness of sound was the result of percussion over all the superior regions of the chest, but more particularly below the right clavicle, where the respiratory murmur was scarcely audible. Over the upper portion of the left side it was feeble and rough. Up to June 17th, which was the seventy-second day of the adoption of the naphtha treatment in fifteen drop doses, she had been slowly but steadily improving, her cough, expectoration, difficulty of breathing, and nocturnal perspirations having entirely left her. Her appetite was natural, her bowels regular, and the physical powers improved. Percussion yielded a good sound throughout the walls of the chest, and the respiratory murmur was natural. On July 15th, being the one hundredth day of the treatment, she appeared thin, but in excellent health.

[Mary Maclaren has been remarkably well since I attended her, in the summer of 1843. She has married again, but still resides in Turk's Head Yard, Oxford Street.]

CASE XLIII.

Martha Lord, a married woman, aged 29, residing at 44, Clarence Gardens, Regent's Park, was admitted under my care on March 11th, 1843. She had always been ailing, and suffered from occasional cough during the last nine years, which had never been severe until this winter. For several months it was accompanied with great expectoration, difficulty of breathing, and nocturnal perspirations. The palms of the hands and soles of the feet were frequently hot and dry, and the loss of flesh was very great. The bowels were regular, the appetite bad, and pain was experienced at the pit of the stomach, occasioned by taking food, with flatulence and palpitation. Percussion elicited a dull sound over all the upper part of the chest, and the respiratory murmur was inaudible in some parts of the left clavicular regions. Over the same spaces on the right side it was both feeble and harsh, where the heart sounds were very distinct. Fifteen drops of naphtha in a little water were directed to be taken three times a-day. At the end of the thirty-fifth day she was considerably better, for the perspirations, along with the other hectic symptoms, had not shown themselves for

some weeks, and the cough, expectoration, and difficulty of breathing were improved. The bowels were constipated, and she had pain over the region of the liver. Two aperient pills were ordered to be taken occasionally at bed time, and a mustard poultice to be applied over the painful part. On the fifty-sixth day, percussion yielded a much clearer sound, and the respiratory murmur was harsh below the left clavicle, and natural on the opposite side. On July 3rd, being the eighty-fourth day since the commencement of the naphtha treatment, she had no symptom remaining of the chest affection, and only complained of slight debility.

[The only information I have been able to learn of Mrs. Lord's health is, that when she left Clarence Gardens, about twelve months ago, she appeared to be enjoying good health.]

CASE XLIV.

Susan Norton, a married woman, aged 37, residing at 5, Tottenham Mews, Tottenham Court Road, who had lost both her father and mother from consumption, was admitted under my care January 2nd, 1843. For six weeks she had been afflicted with cough, and last March she had a severe attack of inflammation of the lungs, since which period she had not been free from cough. During the last three months it had increased, attended with great expectoration, difficulty of breathing, and perspirations. She had spat blood in large quantities several times since the autumn, and was formerly a stout woman, but had now become greatly reduced in flesh, and she suffered from pain on both sides of the chest. The pulse were 100, and weak, and palpitation of a very severe kind came on occasionally; the tongue was white and furred at the base, the appetite bad. The bowels, however, were regular. Percussion yielded a clear sound over the right clavicular regions, but very dull over the left, where the respiratory murmur was harsh, and in parts inaudible. On the other side it was puerile. Expiration was prolonged. She was ordered to take ten drops of naphtha in a tablespoonful of water three times daily, and in the course of seven days the pulmonary symptoms had undergone general amendment. Within the last few hours she had an attack of diarrhoea, and the palpitation was severe, which yielded in the course of two days to a double dose of the naphtha, in which were dissolved two grains

of the hydriodate of potash. At the end of thirty-five days the cough, expectoration, and difficulty of breathing, had almost disappeared, and she had scarcely suffered from perspirations since she commenced the naphtha treatment. After the fifty-sixth day she complained of sickness, pain in the head, and violent palpitation, with a return of the cough, which she attributed to the last medicine she had taken, which was very nauseous and burning, as before she commenced it she considered herself well. Her suspicions proved correct, for the naphtha she had on this occasion taken had not been obtained at the usual place, and was determined to be a highly deleterious spirit. At the termination of the seventy-eighth day of the naphtha treatment, percussion yielded a natural sound over all the superior part of the left side of the chest, where the respiratory murmur was healthy ; her appetite was natural.

[Mrs. Norton considers herself better now than she has been for the last twelve years. No. 5, Tottenham Mews, continues to be her residence.]

CASE XLV.

Mr. Zilwood, a married man, aged 42, and master of the Blind School, Queen Square, Bloomsbury, shortly after his birth was bereft of his mother's care, who died of consumption, and several other branches of his family were also cut off by that disease. Through his usual medical attendant, Mr. Whidborne, I was consulted on May 24th, 1843. As a child he was not strong, and at no period of his life had he enjoyed robust health. He was very liable to take cold, which always terminated in cough, and for several winters he had suffered from expectoration as well as cough. He had been long subject to indigestion, his bowels became relaxed from very slight causes, and his appetite was rarely good. About two months ago he had a severe attack of acute rheumatism, which gave way to the usual remedies. He had chronic pains in several joints of the upper extremities, which were still a little swelled. The cough, expectoration, difficulty of breathing, and nocturnal perspirations were severe, and his general appearance betrayed considerable emaciation. Percussion nowhere yielded an unhealthy sound, except over the upper region of the chest on the right side, where great dulness existed, and the respiratory murmur was

scarcely audible, the dry crackling *râle* being distinct, whilst on the opposite side it was puerile. Below the dull space on the right side the sounds of the heart were very evident, and an abundance of sibilant, sonorous, and sub-mucous rattles were present. He was ordered a saline draught, and a pill containing a grain of calomel, and a third of a grain of opium, every six hours, and a little compound iodine ointment to be rubbed into the painful parts night and morning. In the course of nine days, during which period his mouth became sore, a considerable amendment was perceptible in the rheumatism, and the cough and expectoration had diminished. The same dull sound below the right clavicle was the result of percussion, and the only improvement in the pulmonary symptoms were those which indicated bronchitis, namely, the sibilant, sonorous, and sub-mucous rattles; these were almost replaced by a healthy respiratory murmur, which continued to be nearly inaudible below the right clavicle. In the course of twelve days from the commencement of the naphtha treatment, which was given in doses of fifteen drops, the nocturnal perspirations ceased, followed by diminished cough, expectoration, and less difficulty of breathing; the appetite was natural, and the bowels regular. Percussion yielded a much better sound below the right clavicle, where the respiratory murmur was distinctly audible, with an entire absence of the dry crackling *râle*, and a diminution of the sounds of the heart, whilst on the left side the puerile character of the respiratory murmur had almost disappeared. The dose of the naphtha had been increased to twenty drops for some days. On June 26, being the thirty-third day of the treatment, I learned from Mr. Whidborne that the patient continued to improve, and that on one occasion, being for a day only accidentally without his medicine, an evident change for the worst ensued, which was quickly removed by resuming the medicine the following day. Upon inquiry lately, I find he is quite well, not having had for some time an occasion to use the naphtha.

[Mr. Zilwood enjoyed better health during the winter of 1843—4 than he had done for several previous years. He was free from cough, expectoration, and difficulty of breathing; had increased in weight and strength; his appetite was good; he could walk eight or nine miles

without fatigue, and was altogether in excellent health. He suffered from a slight attack of cough and expectoration during the late winter, which speedily gave way to Mr. Whidborne's treatment. Mr. Zilwood is now the proprietor of a private establishment for the education of the blind, at No. 1, Trafalgar Cottages, Balls' Pond, Islington. Shortly after the recovery of his health, in the summer of 1843, wishing to insure his life, he applied to the Asylum Life Assurance Office for that purpose; the medical officers, having previously learned how he had regained his health, subjected his chest to a searching examination, and declined accepting his life. A similar refusal followed the application to the Church of England Assurance Office. He at length applied to the Medical Invalid and General Assurance Society, which insure diseased lives, but the medical officers of that institution refused him also; at the same time informed him, that if he continued well for the space of six months they would no longer object. He did not renew his application until eighteen months afterwards, when they acceded to his request; but the premium demanded was so high, that Mr. Zilwood did not think it prudent to accept their terms.

The refusal to insure Mr. Zilwood's life, by the medical officers of the three life offices, affords strong evidence, independently of my

own testimony, that he was affected with phthisis; for, excepting the lungs, his organization appeared tolerably healthy. These had undergone marked improvement under the naphtha treatment; probably so much of the tuberculous matter had been absorbed, as occasioned the general symptoms of phthisis; the remainder being harmless, out of the pale of the absorbents, and inoffensive to the system, as shown by the excellent health he has enjoyed during the last two years.]

CASE XLVI.

Catherine Lay, a single woman, aged 26 years, following the occupation of dressmaker, and residing at 22, Wells Street, was admitted under my care June 5th, 1843. She had very good health up to the last two or three years, since which time, in the winter, she had been harassed with cough. This led to considerable expectoration, lately followed by difficulty of breathing, nocturnal perspiration, and great loss of flesh, and an obstinate constipation of the bowels; but at no period had she suffered from indigestion. Percussion yielded a dull sound over the left clavicular regions, where the respiratory murmur was feeble and harsh. Over the same spaces on the opposite side it was puerile, and the sound from percussion clear. Fifteen drops of naphtha in a tablespoonful of water having been administered three times a-day, at the expiration of twenty-eight days the cough, expectoration, and difficulty of breathing were entirely removed, and the nocturnal perspirations had subsided after a few doses of the drops had been taken. The bowels, however, were confined; the dose of naphtha was now increased to twenty drops, and, to correct the bowels, two aperient pills were ordered to be taken occasionally. On the forty-second day since the treatment with naphtha was commenced, percussion yielded a healthy sound throughout the left superior regions of the chest, and the respiratory murmur was healthy.

[Catherine Lay has suffered from catarrh two

or three times since she recovered from the phthysical attack in 1843; they were, however, of short duration. She is now in good health, and still resides at 22, Wells Street.]

CASE XLVII.

Mapella Taylor, a married woman, aged 22 years, residing at 22, King Street, Soho, was admitted under my care February 18th, 1842. She had always been ailing, and about two months ago was attacked with cough, hoarseness, and expectoration, which were almost immediately followed by nocturnal perspirations and loss of flesh, in addition to which she now had occasional pains in the left side of the chest; the pulse was 100, and small, the tongue shining, and the anterior papillæ enlarged. A fortnight ago she had an unusually severe bowel attack, which she had suffered from, although in a lesser degree, every two or three weeks for several years. The appetite was moderate; depressions existed above and below both clavicles, yet the chest was in good proportion. Percussion elicited generally a dull sound more or less throughout the upper portions of the walls of the chest, but it was more strongly marked over the left clavicular regions, where the respiratory murmur was very feeble. On the opposite side it was less feeble and harsh, but towards the outer end of the clavicle it was almost natural. The sounds of the heart in the upper region of the chest were generally loud. Fifteen drops of naphtha in a tablespoonful of water were ordered to be taken three times a-day. After the lapse of twenty-eight days her cough was less in intensity, and the hoarseness had ceased, and she had experienced no return of the customary attack of diarrhoea. At the end of the sixty-third day a further improvement was manifest in the diminished quantity of expectoration and lesser difficulty of breathing, and the signs, both from percussion and auscultation, had improved. At the expiration of the one hundred and fifth day the cough had ceased, as well as the expectoration; the appetite was natural, and the bowels were in a healthier condition than they had been for several years. Percussion elicited generally natural sounds, and the respiratory murmur had a healthy character.

[Mrs. Taylor has applied to me once since the publication of her case, in consequence of an at-

tack of dyspepsia, from which she occasionally suffered; she has been quite free from pectoral symptoms, as well as hoarseness. She continues to reside in King Street.]

CASE XLVIII.

Susan Jackson, a married woman, aged 23 years, residing in Upper Rupert Street, Haymarket, and of a very healthy family, commenced the naphtha treatment in twenty drop doses on April 4th, 1843. About six months ago she completed a three months' close attendance as a nurse upon her sister-in-law, who died from consumption. Shortly after the sister-in-law's death a dry cough commenced, which gradually led to expectoration and difficulty of breathing, followed more recently by nocturnal perspirations and considerable loss of flesh. Her bowels were regular, her appetite very bad, and her spirits very much depressed. Her hair and eyes were dark brown, her cheeks fresh coloured, and skin semi-transparent. There was a dulness of sound over all the upper part of the chest, particularly on the right side, where the respiratory murmur was scarcely audible. On the opposite side, over the clavicular regions, it was feeble. The sounds of the heart were loud on both sides. At the end of the twenty-eighth day great improvement had ensued, as the cough was but slight, as well as the expectoration and the difficulty of breathing. The perspirations, though less frequent, had occurred more often during the last week than during the two that preceded it. The appetite was improved; the signs from percussion and auscultation were more satisfactory. After the lapse of seventy days from the commencement of the naphtha treatment, the cough had entirely subsided, as well as the difficulty of breathing and perspirations, leaving only a slight expectoration remaining. Percussion yielded a good sound generally, and the respiratory murmur was almost natural.

[Since the publication of Mrs. Jackson's case she has generally enjoyed good health. She was confined a few weeks ago with a healthy child.]

CASE XLIX.

Sarah Harrison, a married woman, aged 24 years, residing at 8, William Street, Regent's Park, was admitted under my care June 1st, 1843. She had not suffered from ill health until within the last two years, when she had repeated attacks of cough and cold. About two months ago the cough and expectoration occurred without any apparent cause, followed by difficulty of breathing, considerable emaciation, and nocturnal perspirations. The bowels were confined, the appetite bad, and pain was experienced at the pit of the stomach after taking food, followed by flatulence and palpitation. Percussion yielded a dull sound throughout the upper regions of the chest; the respiratory murmur was feeble and harsh over the same spaces, and in parts below the right clavicle, where the heart sounds were very distinct, it was scarcely audible. Fifteen drops of naphtha, in a tablespoonful of water, were ordered to be taken three times a-day, and two aperient pills occasionally. At the end of the twenty-first day the cough, expectoration, and difficulty of breathing had nearly ceased, and the perspirations entirely, and the signs from percussion and auscultation were more satisfactory. The dose of naphtha was now increased to twenty drops three times a-day. After the expiration of the forty-fifth day of the naphtha treatment there were no remains of the pulmonary disease; the sounds from percussion as well as auscultation were healthy, and the different symptoms had subsided.

[Mrs. Harrison, within the last three months, applied to me for the relief of a cough, which speedily got well; with this exception she has enjoyed excellent health since July, 1843. She still resides in William Street.]

CASE L.

Jane Williams, a married woman, aged twenty-three years, residing at 13, Crown Street, Soho, having lost several members of her family from consumption, consulted me on May 23rd, 1843, and complained of cough, expectoration, and difficulty of breathing, which came on simultaneously last Christmas. During the last six or eight weeks she experienced severe nocturnal perspirations,

and had become spare in body and weak in strength. The bowels were regular, the appetite bad, and great pain after partaking of food was felt at the pit of the stomach, with frequent palpitations. Over all the superior part of the chest there was dulness of sound, which was strongly marked over the right clavicular regions. The respiratory murmur was feeble, and generally harsh. Tartar emetic ointment, to be rubbed into the pit of the stomach three times a-day until pustules appeared, and naphtha in fifteen drop doses, was first administered; and at the end of seven days there was less cough and perspiration, and the pain which was felt after taking food had ceased. By the fourteenth day she had further improved, and her appetite, she said, was better than it had been for several years. On the nineteenth day she was much worse; all the unfavourable symptoms had returned, which I attributed to her taking cold during a shower, while enjoying an airing. The tartar emetic ointment was, in consequence, again had recourse to, and the dose of naphtha was increased to twenty drops three times a-day. On the twenty-ninth day she had made good her lost ground; and at the expiration of the fiftieth day after the naphtha treatment had been pursued, her cough had left her, the expectoration was hardly to be noticed, and the difficulty of breathing and nocturnal perspirations had ceased. The sounds from percussion and auscultation were natural.

[Mrs. Williams was lately confined with a healthy child. She has had better health since she recovered from her consumptive attack, in the summer of 1843, than she previously had for some years. She continues to reside at 13, Crown Street.]

CASE LI.

Ann Jackson, a single woman, aged 22 years, residing at 10, Gerrard Street, Soho, consulted me on the 1st of June, 1843. She had lost a sister from consumption, and a brother was then labouring under that disease. She had enjoyed good health until last winter, when she was attacked with cough and expectoration, which had gradually increased up to the present time. She had not suffered from nocturnal perspirations, and but slight difficulty of breathing, and in other respects her health was good. A dull

sound was evident over the right clavicular region only, where the respiratory murmur was harsh and feeble; but over the same region, on the opposite side, it had a puerile character. After taking fifteen drops of naphtha in a tablespoonful of water three times a-day, at the end of fourteen days the cough and expectoration had nearly ceased, when the dose was increased to twenty drops three times a-day. On the 5th of July, being the thirty-fifth day since the commencement of the treatment with naphtha, the right side presented a good sound on percussion, and the respiratory murmur had resumed its healthy character; in a word, she was quite well.

[Ann Jackson has enjoyed uninterrupted good health since I attended her in 1843. She has not changed her residence since her case was published.]

CASE LII.

Sarah Lable, a single woman, aged 22, following the occupation of a dressmaker, at 55, Museum Street, was admitted under my care on June 2nd, 1843. She was easily excited, and the slightest emotion produced headache. For the last two months she had cough in a very severe degree, expectoration, difficulty of breathing, accompanied with burning flushes in the face, hands, and soles of the feet. The bowels were generally constipated, the appetite very bad, and for the last month she had been troubled, after taking food, with pain at the pit of the stomach, with sometimes an attendant sickness. There was dulness of sound on percussion over all the upper regions of the chest. The respiratory murmur was generally harsh and feeble; and below the left clavicle it was in parts inaudible, as well as at the apex of the left lung. On the right side, the sounds of the heart were distinct. Fifteen drops of naphtha in a tablespoonful of water having been taken three times a-day, after a lapse of thirty-one days all the pulmonary symptoms had given way, but she complained of great pain over the forehead. Eight leeches were then applied to the temples. At the end of the forty-second day of the treatment with naphtha, namely, July 7th, the pain in the head had ceased, the sound from percussion was healthy, and the respiratory murmur natural.

[Since this patient's case was reported, she has enjoyed excellent health. She has got married,

and is the mother of a child. She now resides at 2, Bloomsbury Street.]

CASE LIIL.

Ann Young, a married woman, aged 35, without children, residing in Silver Street, Bayswater, and of a consumptive family, having lost her mother from that disease, was admitted under my care March 23rd, 1843. She stated that about three months since she was attacked with cough, which had gradually increased up to the present time, accompanied with great difficulty of breathing and constant night perspirations. She had lost much flesh, and lately had suffered severe pain at the pit of the stomach after meals, which was attended with almost constant eructations. She had scarcely any appetite. She complained of a distressing uneasiness at the top of the head, which she described as something more than ordinary pain, however severe. It was not affected by heat or cold, neither was it better or worse at any particular hour of the day or night. The bowels and *catamenia* were regular. A dull sound was the result of percussion over the superior part of the chest, both posteriorly and anteriorly, and the respiratory murmur was generally harsh and feeble over the left sub-clavicular region ; the dry crackling *râle* was also present ; and over the same space on the opposite side the sounds of the heart were very loud. Twenty drops of naphtha in a tablespoonful of water were directed to be taken three times a-day. After a period of seven days, considerable improvement was evident in the disease of the chest, but no amelioration in the head affection had taken place ; a little compound iodine ointment was, therefore, ordered to be rubbed into the scalp night and morning. The cough had entirely ceased by the twenty-first day, as well as the nocturnal perspirations, but the sensation in the head was not at all improved. Six leeches were applied to the temples without effect, and on the thirty-fourth day she complained of sickness, palpitations and fainting, with an increase of the disagreeable sensation in the head. She attributed the change for the worse to the drops she had taken, which differed both in taste and smell to those she had formerly used. Upon inquiry, it appeared that an impure naphtha had been substituted for that she had been accustomed to take. Percussion yielded a slightly dull sound over the left sub-clavicular region, where the respiratory murmur was heard, while elsewhere it was natural. The sounds of the heart were heard but faintly below the right clavicle. Two small

blisters were directed to be applied behind the ears, and kept open for a week with savine ointment. On the fiftieth day no symptom remained indicative of the pulmonary disease, or of indigestion, but the sensation in the head still continued, for the relief of which, ten ounces of blood were removed from the back of the neck by cupping, and on the seventy-fourth day of the naphtha treatment, feeling herself quite well, she withdrew from my care.

[Mrs. Young continues to reside in Silver Street, and is free from all pectoral disease.]

APPENDIX.

IT is now more than a century ago since Dr. Barry* recommended puncturing tuberculous cavities as a means of curing phthisis. He published several cases in which his method had been employed with a successful result. This flattering account received but little attention from the profession, and for many years was utterly neglected, which, perhaps, was partly owing to the difficulty the physician then experienced in diagnosing the existence and precise situation of cavities. Without an accurate knowledge of the situation of the tuberculous cavity, it is obvious that the operation is fraught with danger, as illustrated by the following case related by Barry; and although it gave much promise

* E. Barry, M.D. A Treatise on Consumption of the Lungs. Dublin, 1726.

E. Barry, M.D. A Treatise on Three Different Digestions, &c. London, 1763.

of usefulness, speedily put an end to the operation, which, however, on the discovery of auscultation, ought to have been revived.

“I was sent for to a young gentleman of distinction (says Barry), who had been visited some time by an eminent physician, who had attended with me in the former case. He had complained for a considerable time of a pain in his left side, which was broad, not confined to a point. In the progress of it he became hectic, and expectorated a large quantity of purulent matter; at the time I saw him the discharge was more moderate, but it had been frequently so, and returned again in great quantities. I was convinced from the symptoms, and the manner of the expectoration, that the above could never be cleansed, and advised the operation. His case was then thought not so dangerous as to require it; and the former internal regimen, which in every respect was proper, was only continued. In about a fortnight afterwards I was sent for again, and was surprised to find a surgeon there, with his apparatus ready, and prepared for any immediate operation; the place was marked by the physician who attended him; the operation was safely performed, but no matter was discharged. He died some time afterwards, before the wound was healed. On opening the body, the aperture was unfortunately made an inch and a half below the cystis.”

From the complete success which attended the treatment of early phthisis by naphtha, and from the relief it often afforded in the latter stage of the disease, I was led to the conclusion, before I perused Barry's observations, that the irritation occasioned by the distension and contraction of the walls of cavities through the act of respiration, was one of the chief obstructions to the healing process. "When," says Barry, "all these circumstances are favourable, another difficulty, which often prevents the healing of an ulcer in the lungs, is the want of sufficient rest in an organ successively enlarged and contracted by respiration."

After reading and reflecting on the works of this author, I determined to follow out his views, in conjunction with that treatment I had found so powerful in arresting the disease in its early stage, without being aware at the moment that the operation had been revived; I have, however, since learned, that it has been performed within these few years in Germany and Belgium, but with what success I have not yet ascertained.

Sir Henry Marsh treated two cases in Dublin on this plan about fifteen years ago; in one complete recovery followed the operation. The details by Sir Henry I am happy to be able to lay before the profession, through the kindness of a friend, and, coming from so high an authority, will no doubt be read with much interest:

“ Merrion Square,

“ April 4th, 1845.

“ DEAR SIR,

“ The notes of the cases, the leading facts of which I stated to you in conversation, I cannot find ; in changing from my former residence they have been mislaid.

“ Fourteen or fifteen years have elapsed since the time when these cases fell under my observation ; I retain, however, a distinct recollection of the most important points respecting them:—

“ One was that of a young woman, aged about 23 or 24 years, who was admitted into Steeven’s Hospital, exhibiting the usual signs, local and constitutional, of tuberculous phthisis ; the former being limited, apparently, to the superior part of the right lung. In that situation there existed unequivocal signs of a tubercular abscess. After having remained for some time in hospital, there was observed, about two inches above the right nipple, a small, red, slightly elevated spot upon the skin, which appeared like the usual pointing of an abscess. At this point a free incision was made between the ribs, and through the opening a large quantity of tubercular matter, pus, and thin transparent fluid escaped. This remained for months a fistulous opening, giving exit to matter in varied quantities ; during the whole of that time, I remember that a candle, placed close to the opening, was extinguished by a forcible

expiration. There was scarcely a day for many weeks that a candle was not so placed by some one or other of the pupils, and always extinguished during expiration or coughing. The girl improved greatly in health, from the hour of the performance of the operation. The hectic fever, the night sweats, the emaciation, the cough and expectoration, all ceased; the chest contracted, and the strongest expectations of ultimate recovery were entertained; we were, however disappointed; rather suddenly, all the formidable symptoms re-appeared, and the auricular signs of tubercles in the left lung were no longer doubtful. She died, manifesting all the characters of acute phthisis; the fistulous opening discharging to the last. All I can remember of the dissection is, that in the right lung there were presented the thickened irregular walls of a large tubercular abscess, nearly empty; the disease being absolutely limited to the superior third of this lung, whilst in the left lung the appearances were those of a recent and abundant deposition of tubercles.

“The second case was that of a girl, between 11 and 12 years of age, admitted into the Institution for the Diseases of Children, Pitt Street.

“This little girl was much attenuated, had hectic fever, cough, and purulent expectoration. The examination of her chest detected no signs

of disease, except under the left clavicle ; there well-marked gargouillement existed.

“ After a few days, the abscess began to point externally ; a lancet was introduced, and much apparently purulent matter escaped ; the chest fell in gradually, the quantity of matter discharged diminished daily ; and the constitutional signs of pulmonary disease subsided. A year afterwards I saw this little girl, well nourished, free from fever, cough, and expectoration, and restored to excellent health. The chest on the left side remained much contracted ; it was, in the infra-clavicular region, comparatively dull on percussion, and the respiratory sounds in that situation were comparatively feeble but pure ; in all other parts of the thorax the auricular signs were normal.

“ I remember having been—about two years after I had witnessed the above cases—requested to see a young lady in advanced phthisis.

“ After the most careful examination of the chest, no signs were discoverable, except those of a circumscribed tubercular abscess in the left lung ; these were so distinctly marked, that I was induced to propose that an opening into it should be made ; and I recommended the successive application of caustic, so as to promote the pointing of the abscess ; at first my proposition was readily acceded to ; the next day, however, I received a note, the purport of which

was that the proposed treatment was inadmissible. About six weeks afterwards this young lady died.

“I need scarcely add, that cases of this kind are exceedingly rare.

“ I am, dear Sir,

“ Your’s very truly,

“H. MARSH.”

A year or two after these cases were operated on, Dr. Ramadge adopted this method of treatment, and one out of two patients so treated recovered ; at least, he states the patient was perfectly well two years after the operation was performed.

Barry observes, “When an ulcer in the lungs, from its situation and small aperture, cannot be cleansed, the symptoms increase, and elude the force of internal medicines ; instead of amusing the patient with delusive hopes, and the repeated use of palliative medicines, or announcing certain death, it would be of the greatest use, if a method could be proposed, which, though dubious, and somewhat painful in the operation, may carry some prospect of relief.” Page 360.

“It appears, from the dissection of those who have died of this distemper, that such abscesses or ulcers in the lungs generally adhere by a large surface to the pleura ; that when this membrane has not originally been engaged with an inflammation, and afterwards suppurated, it is greatly thickened and hardened ; that purulent matter is

always contained under that indurated part; that ulcers of this kind have been generally fistulous.

“Hence it is evident that no external tumour and suppuration can be expected to direct this operation, but where the pleura and lungs in the adhering parts are both suppurated; and that when the pleura is thus indurated, and its resistance increased, the ulcer must enlarge its bounds on the lungs, where it is more diminished. The situation of it can only be determined by the pain which originally and chiefly affected that part, by a weight remaining, and sometimes by a sensible enlargement of the ribs rising into a higher arch.

“By this adhesion of the lungs to the pleura, the parts affected are kept (as if carefully designed by nature) in a great measure in a state of rest, and easily admit an opening into the cavity: neither, if the operation fail, can it be attended with any great danger, or much accelerate the progress of the distemper. There is one material circumstance which may direct the operation, which is a greater resistance than usual to the knife, from the induration and thickness of the pleura which always attend such cases, except they are very recent. This may then be considered as a certain external mark of the seat of an ulcer. He may then safely advance, and, if other circumstances are favourable, a recovery may be expected.

“If this operation be timely and judiciously

performed, many persons may be preserved who must otherwise unavoidably die ; some difficulties must always attend, and often prevent it. Physicians will be apt to avoid directing an uncertain operation, and liable to censure if it fail of success, especially when the disease is recent, and other symptoms favourable ; and yet that is the only proper time, but it is generally deferred until the strength is wasted.

“ A soldier received a wound with a sword, penetrating through the ribs into the cavity of the breast, from whence a small quantity of blood was discharged externally. The surgeon who attended him quickly healed the wound : this was succeeded with a cough, hectic fever, and a difficult respiration. These symptoms were particularly violent in the night ; at length he expectorated a considerable quantity of purulent matter. In this decaying condition he remained some time, until the wounded part was again opened by incisions, which immediately discharged a large quantity of purulent matter. The cough, hectic fever, and difficulty of breathing soon abated, and by the use of a proper regimen he was restored to perfect health.

“ It is most certain that the lungs of this person were ulcerated, and adhered in that part to the pleura, and that he must have languished away, if not relieved by the discharge from a new wound.

And though the aperture was evidently pointed out in this case by the symptoms succeeding the healing of the wound, yet when there is such an adhesion from an abscess, or ulcer, proceeding from an internal cause, there is almost equal reason to expect success, if it is properly made ; the only difference is, that the purulent collection in the former case proceeded from an external wound, with a good habit of body ; in the latter, from an internal cause, and originally owing to a vitiated state of the humours, which may, by a proper regimen, be corrected.

“ A young gentleman, of 20 years of age, was seized with a pain in his left side, which continued for some days, and, from some circumstances attending it, was mistaken for an ague ; bleeding in a sufficient quantity was neglected, he became hectic, and expectorated purulent matter ; the cough was frequent, the expectoration difficult, and not equal to the load which oppressed him. In this state I saw him, and recommended the operation in that part of his side where he had been formerly affected with pain. It was performed by incision, and discharged about six ounces of purulent matter. The discharge continued regular for some days, but was with some difficulty promoted by a strong inspiration and coughing, and then flowed at the different efforts that he made, like wine out of a hogshead which had not a sufficient vent ; this became more easy

and effectual by the use of injections. The expectoration and discharge continued for about six weeks, but gradually lessened, the cough and other symptoms abated, and in about two months time he perfectly recovered. I visited this gentleman in the year 1726; his case was again laid before me in the year 1754; he had then lately recovered from a pleuritic disorder.

“Within these three years, Mr. Tucker, an eminent surgeon, performed the operation by my direction on two soldiers in the Royal Infirmary, in Dublin, who had scarcely any external marks to determine the seat of the ulcer but the former plan. From each there was a free and regular discharge of purulent matter, and both recovered. In one of them he was obliged by his obstinacy to desist from the operation, but, at his own request, was finished the next day.”

There can be no doubt but what some of Barry's alleged cases of phthisis were merely emphysema; but from the statement he makes relative to the difficulty of penetrating the walls of cavities, consequent upon their induration, is alone strong evidence that some of them were of a tuberculous nature. For in the case of I. G., presently to be noticed, Mr. Storks found considerable obstruction to the entrance of the knife, owing to the almost cartilaginous state of the walls of the cavity.

The primary object Dr. Barry had in view was

the discharge of the fluid within the cavity ; the removal of the cause of the secretion was my aim. No one can doubt that these cavities owe their origin, in the first instance, to the ripening of tubercles; but their persistence and augmentation result, I believe, as before stated, from the distending and irritating effects of the air within the cavity. Hence the object was to remove this, which appeared to me might be effectually done, were a tube of sufficient calibre passed into the cavity, that would admit the escape of air as fast as it entered, so that, a state of repose being secured, the walls of the cavity would be in a much more favourable condition for healing.

CASE LIV.

“ I. G., ætat. 38, a clerk, remarkably intelligent, of a nervous sanguineous temperament, and born of healthy parents. Had always enjoyed good health until the last four years, when he suffered from a nervous fever, accompanied by an affection of the heart, from which he was many months recovering. Whilst in Ireland, in the summer of 1841, he was attacked with severe cough, hæmoptysis, and expectoration, which he believed originated in cold: great debility ensued, and, although the cough and expectoration diminished, he never regained his strength. In the spring of last year hoarseness, loss of voice,

cough, expectoration, and extreme weakness came on, apparently through severe cold; this was shortly followed by an attack of typhus, which confined him to bed for nine weeks. On recovering from the fever, the cough and expectoration had increased, and, from the debility which followed, he was compelled to take to bed for the winter. On February 10th, Mr. Whidborne, a surgeon in Queen Square, was called in, who put the patient under a course of the naphtha treatment; from which he benefited so much, that in six weeks he was able to take exercise out of doors. By the advice of some of his friends, he became an inmate of the Hospital for Consumption at Chelsea; but as he did not improve, after a sojourn of three weeks he returned to his home.

“On August 10th, by the advice of Mr. Whidborne, he consulted me. His cough was troublesome, and often occasioned pain in different parts of the chest. His expectoration, streaked with blood, and of a puriform character, amounted from two ounces to half a pint daily; dyspnœa was considerable, appetite tolerable, and bowels regular. Expansion was deficient over the left clavicular region, where percussion yielded a dull sound. An extensive blowing murmur, with here and there a gurgling rale, and pectoriloquy, were well-marked. Over the same region, on the right side, the vocal resonance amounted to bronchophony; the respira-

tory murmur was more or less bronchial ; the sound on percussion, although it had not the clearness emitted by a healthy lung, was not very dull, and expansion was natural. His pulse were 132 ; respirations, 32 ; height, 5 ft. 6½ in. ; weight, 7 st. 8½ lbs. ; and he expelled 122 cubic inches of air from his lungs, by a forcible expiration, as shown by Hutchinson's breath-meter. The naphtha treatment was ordered to be continued, with generous diet. From this time, he continued slowly to improve up to the beginning of November, with the exception that he was thrown back by five attacks of intercurrent pleurisy, when blisters and a lowering treatment were had recourse to, and the naphtha and nourishing diet suspended. His pulse were 108 ; his weight had augmented to 7 st. 11 lb. The physical condition of the right lung had undergone improvement, but the cavity in the left had decidedly increased. As I saw no prospect of closing the cavity by medical treatment, and consequently no hope of his becoming much better than he then was, I determined to propose the operation of making an incision into the cavern through the walls of the chest, to which he at once assented. I had previously explained that it was not an experiment, for Dr. Barry, of Dublin, had more than a century ago recommended a somewhat similar operation ; and at a subsequent period, in a work on Indigestion, he published several cases

where its use had been attended with complete success.

“ Nov. 15th.—Having previously consulted my friend Mr. Storks on the case, the latter undertook the operation; and we accordingly proceeded to the patient's house for that purpose at half-past one. He was in good spirits; the cough was troublesome; the puriform expectoration amounted to three ounces, which had been discharged during the morning; the pulse were 120. After carefully auscultating the left clavicular region, it appeared to me that the walls of the cavern were thinnest between the third and fourth ribs, about an inch and a half from the sternum, where Mr. Storks decided on making the opening. The operation is detailed by Mr. Storks at the conclusion of my history of the case. Shortly after the opening was made into the excavation through the walls of the chest, the pulse sank to 100, and the cough, expectoration, and dyspnœa ceased. A little faintness occurred during the operation, which was removed by a few teaspoonfuls of brandy and water. The blowing murmur and pectoriloquy had undergone a diminution in intensity. Quiet, and anti-phlogistic regimen, were enjoined. At 7, P.M., the air was passing out of the wound freely. He complained of pain between its orifice and the shoulder, with numbness of the left arm. The pulse were 96; he had neither cough, expecto-

ration, nor difficulty of breathing. He had been a little faint, which yielded to a small quantity of brandy and water. A composing draught was ordered in the event of restlessness during the night.

“ 16th, 7, A.M.—As he had been uneasy in the early part of the night, the draught was administered, which procured six hours' refreshing sleep; he was free from cough, dyspnœa, and pain; the pulse 68. He had brought up several times a little frothy mucus mixed with blood; a little bloody discharge oozed from the wound, which looked healthy.

“ 9, P.M.—The pulse were 80. The orifice of the wound appeared to be closed, as no air could be detected passing in or out; notwithstanding which, he was free from cough, expectoration, and dyspnœa.

“ 17th, 8, A.M.—He had passed a good night, and towards the morning had felt a little difficulty of breathing, followed by slight cough; the discharge being bloody frothy sputa. As the mouth of the wound seemed still closed, a little lint was pushed through the slight adhesions into the cavity.

“ 5, P.M.—He had a slight fit of coughing at three o'clock, which ended in a little expectoration of frothy bloody mucus; the pulse 88. The lint was removed by Mr. Storks, and a piece of elastic gum tube inserted into the cavity.

“ 18th, 8, A. M.—Last evening he took an aperient, which had operated in the early part of the night; and, as he was restless afterwards, he took a composing draught, which procured him an excellent night; he had neither cough, expectoration, nor difficulty of breathing; the pulse were 80. He was ordered half a pint of beef-tea twice a-day.

“ 19th, 8, A. M.—He had a slight fit of coughing in the night; no expectoration; the pulse 76; the respirations 24. As no air could be detected passing in or out of the tube, Mr. Storks restored the connection between the orifice of the wound and the superior part of the cavity. He was ordered a mutton chop and a glass of ale for his dinner.

“ 9, P. M.—The pulse were 76; he was entirely free from cough and expectoration; a little brown coloured discharge flowed out of the tube. He had taken ten minims of nap. rect. in a table-spoonful of distilled water, which was ordered to be repeated twice a-day.

“ 20th, 8, A. M.—He had had seven hours of undisturbed sleep. He was free from cough, difficulty of breathing, and pain. On waking, he had expectorated a little frothy mucus. A feather exhibited very distinct movements on being placed at the mouth of the tube. The pulse were 72; the respirations 22. The bowels were confined.

“ 9, P. M.—About twenty minutes after he had

partaken of his chop and ale, which he had eaten with an excellent appetite, the whole surface of the body was chilled ; rigors succeeded, followed by fever, vomiting, and great pain in the head. The skin was hot and dry ; there was great thirst, with spasmodic twitches in the wound ; the pulse were 112, but the pectoral symptoms had undergone no change. The aperient ordered in the morning had not been taken until seven o'clock in the evening, and had not acted. It was ordered to be repeated, should the first fail to relieve the bowels by midnight. A table-spoonful of the following mixture was also ordered to be taken every four hours :—

R Creosot. gtt., xii. ;
Aq. destill., $\frac{3}{4}$ vj. M. fiat mistura.

“ 21st, 8, A.M.—The bowels had acted twice with the aid of the second aperient, the sickness had ceased, and the pain in the head and heat of skin had diminished. The pulse were 96. He was free from cough, expectoration, and dyspnœa.

“ 9, P.M.—The pulse were 88, and the symptoms of gastric disturbance were rapidly disappearing.

“ 22nd, 8, A.M.—The pulse were 68 ; the respirations 24. He had neither cough, expectoration, nor difficulty of breathing. A little boiled mutton was ordered for his dinner.

“ 23rd, 8, A.M.—The pulse were 74. In the early part of the night the tube had become displaced, and touched the opposite side of the

cavity, which produced a sickening heavy pain. On being restored to its former situation, he slept the remainder of the night comfortably, and was free from all pectoral disturbance. He was ordered to recommence the naphtha mixture, and take a little sherry and water with his dinner.

“ 24th, 8, A.M.—The pulse were 76. He had coughed a little upon waking in the morning, and had expectorated about half a tablespoonful of frothy mucus, mixed with a little purulent discharge. He attributed the cough to his head having slipped off the pillow during the night.

“ 9, P.M.—About the middle of the day he had a severe attack of cough, difficulty of breathing, and pain in and about the wound, as well as severe headache; these were relieved by an anodyne, and expectorating mixture for the former, and cold lotions for the latter.

“ 25th, 8, A.M.—The pulse were 88; the respirations 28. He had passed a tolerable night, with slight cough, and trifling expectoration of frothy mucus.

“ 26th, 8, A.M.—The cough and expectoration had diminished. He had slept at intervals during the night. The pulse were 100.

“ 9, P.M.—He was generally more comfortable than in the morning; he attributed this to his being able to keep an erect position by the aid of one of Daw's patent chairs. The pulse were 112; skin hot; tongue moist.

“27th, 8, A.M.—The pulse were 96. He was very languid ; had passed a tolerable night, with slight cough, and expectoration of a brown tenacious mucus, blended with sputa of a purulent character. The appetite was deficient, and he complained of pain in and around the wound. The tube was removed, as it was suspected it might be the cause of the pain.

“4, P.M.—The cough was troublesome, accompanied with difficulty of breathing and great languor ; the pulse were 100 ; the skin hot ; with a total loss of appetite.

“28th, 8, A.M.—The pulse were 84 ; the cough and expectoration were less ; the purulent character of the latter had almost disappeared ; the bowels were open. Ten minims of nap. rect. were added to each dose of the mixture, and wine, beef-tea, and animal jelly, were directed to be given.

“29th, 8, A.M.—The pulse were 92 ; the respirations 28 ; the tongue clean, and the skin moist. He complained of headache, which he had suffered from more or less since the 24th, nausea, and occasional shooting pains. He had had snatches of sleep during the night, his spirits were good, and he felt stronger than he did the day before ; the expectoration, which amounted to about an ounce, was chiefly of a mucous character, and of a brown flesh colour. He had taken nourishment two or three times during the night.

“30th.—He was generally improved, pulse 92; respirations 24. The expectoration did not exceed half an ounce during the day, and was but slightly streaked with blood.

“Dec. 1st.—Had passed a tolerably good night; complained of slight headache; no expectoration during the morning; pulse 74; respirations 26; his appetite was improved.

“2, P.M.—Expectoration was very slight, with but little cough or difficulty of breathing. Air continued to escape freely through the orifice of the wound; pulse 80.

“2nd, half-past 8, A.M.—Had passed an excellent night, and felt very comfortable. The cough and expectoration were very slight; appetite good; pulse 90; respirations 20. The expectoration had a rusty coloured appearance, and here and there streaked with blood.

“9, P.M.—The patient had passed a quiet easy day; he believed he was gaining strength; his appetite was excellent; pulse 80; respirations 24.

“3rd, 8, A.M.—The pulse were 88; the respirations 20. Air had passed freely out at the orifice of the wound at every inspiration; he was very comfortable; had slept eight hours without cough, and had very little expectoration; the appetite was much improved; the bowels confined. He felt satisfied he was gaining both flesh and strength. An enema was ordered.

“ 8, P.M.—Believed for some days past he had gained flesh. His appetite was excellent, and he felt remarkably well. The cough and expectoration were slight; bowels confined; pulse 88; respiration 20.

“ 4th, 8, A.M.—Passed a good night; bowels relieved without medicine; cough slight; expectoration during the night about half an ounce, of a flesh coloured appearance; pulse 92; respiration 20.

“ 5th, 8, A.M.—He has had an excellent night, without cough or expectoration. On waking, had a little uneasiness about the wound, which apparently arose from the tube becoming blocked up with secretion, thereby preventing the free passage of air through the orifice. He had, on waking, expectorated two or three pieces of tenacious, flesh-coloured mucus, similar to that which had been brought up during the last eight days. He complained of nausea after taking his medicine, in consequence of which the liq. op. sed., vin. ipecac., and mucil. acac. were removed from the mixture. He felt stronger; the pulse were 80, and the respirations 16.

“ 6th, 8, A.M.—The pulse were 88; the respirations 16. He had slept well throughout the night, his appetite was excellent, his bowels were open, the cough was very slight, and the expectoration for the last twenty-four hours amounted to not more than a teaspoonful, and was of a semi-transparent, mucous character.

“7th, 8, A.M.—He had passed a good night; the cough was slight; he had discharged about half a tablespoonful of mucus, blended with a few sputa of a flesh colour. His appetite was excellent; his pulse were 90, and the respirations 16. Air continued to pass freely through the tube.

“8th, 8, A.M.—He had passed the night in bed for the first time since he had used Daw’s chair. Towards morning he complained of cold, and cold perspirations, with great irritation in the stomach and bowels; the latter had been disturbed twice with unhealthy evacuations. He had a troublesome hacking cough, without expectoration, and headache; the pulse 88; the respirations 28. During the night there was a free discharge of thin pus from the wound, through which the air passed freely. He attributed this unfavourable change to a beef steak he had eaten the previous day for his dinner.

“3, P.M.—The following powder was ordered to be taken immediately, and his usual aperient two hours afterwards:—

R Hyd. cum cretâ, gr. iij.;

Pulv. ipecac. co., gr. v. M.

“9th, 8, A.M.—The abdominal disturbance subsided after the aperient had acted. He had passed a tolerable night in Daw’s chair, which he preferred to the bed. The irritating cough had considerably abated; the pulse 92; the respirations 20.

“ 10th, 8, A.M.—He had had an excellent night, with very little cough or expectoration; the pulse 88; the respirations 18; the appetite good. He was cheerful, and felt stronger. The depressions about the left clavicular region appeared less marked than they had been. The physical signs about the cavity had undergone no particular change since the last examination. The respiratory murmur in the inferior portions of the left lung was in some places healthy, and in others bronchial, without any marked vocal resonance.

“ 11th, 8, A.M.—He was steadily improving; the pulse were 90; the respirations were 18.

“ 12th, 8, A.M.—He was daily growing stronger. He had no cough during the night. The pulse 80; the respirations 16 to 18. The bowels were confined. An aperient was ordered.

“ 13th, 8, A.M.—He was remarkably well and cheerful. He had no cough during the night, and very little in the day. The pulse 80; the respirations 24. The depressions about the left clavicular region had become more evident.

“ 14th, 8, A.M.—He had passed eight hours of undisturbed sleep. The expectoration for several days past had been chiefly of a mucous character, with an occasional sputum of a brown colour; the whole did not exceed half a drachm to a drachm in the twenty-four hours—certainly less than many persons expectorate in health.

“ 15th, 3, P.M.—Has had a most comfortable night; pulse 88; respirations 16. Bowels not relieved to-day. Has expectorated a very small quantity of transparent mucus, with one brownish sputum; appetite excellent. Has been walking about the room.

“ The operation performed upon I. G., the individual whose case is recorded above, will not perhaps be thought devoid of interest; and although the proceeding is simple and easy of performance, still those who have had no experience in the operation or its effects, and who may be induced by the perusal of this case to test its advantages, will not consider even the minute details of such a proceeding unimportant.

“ As it is quite unnecessary, after the report my friend Dr. Hastings has drawn up of the case, for me to make any observations upon the facts that induced us to try the effect of making a communication between the walls of the chest and a tuberculous cavity, I shall at once proceed to detail the steps of the operation, making such remarks as they may require, but at the same time confining myself strictly to those questions likely to affect the surgical treatment of this fatal disease.

“ On Friday, Nov. 15, 1844, I. G. was laid in the recumbent position. An incision, two

inches in length, being made at right angles with the left clavicle, in a line with the nipple, which, if prolonged, would have divided it (the nipple) in the centre, the fibres of the pectoralis major were exposed, and divided to a similar extent. The third intercostal space being thus laid bare, a fine hydrocele trocar was thrust into the cavity; and having ascertained to my own satisfaction that air issued from the canula, a scalpel was pushed through the intercostal muscles, nearly in the centre of the space, and carried obliquely upwards into the cavern. A probe being passed along its blade, it was withdrawn, and I was thus enabled to ascertain most satisfactorily that I had penetrated the excavation, the walls of which, as I divided it to the extent of an inch with a probe-pointed bistoury, I found to be extremely dense—indeed, almost cartilaginous. The direction of the second incision was in a line with the ribs, being nearly at right angles with the first incision, there being sufficient space, in consequence of the retraction of the cut fibres of the pectoralis major, for me to make this second incision without again interfering with the integuments. Air and blood immediately escaped from the aperture; and on again introducing the probe, I was unable to move it with the same freedom as when introduced at the small puncture previously

referred to. At this moment the patient was seized with a fit of coughing, and brought up two or three drachms of blood, which had escaped into the cavity.

“I now endeavoured to introduce a silver tube, made under my directions by Mr. Weiss, which, not answering the purpose well, I removed; and as the air was escaping freely, I had him carried to bed, and warm water dressing applied around the wound. On the third day after the operation, a piece of elastic gum catheter was introduced, which has been worn ever since, and found to answer the purpose better than any other kind of tube.

“As it is more particularly my province to describe the best mode of proceeding, as far as my limited experience goes, to effect our object, I do not hesitate to say, from the knowledge I on that occasion obtained, and from the method I have since pursued in the case of a lady to whom I was called by Dr. Hastings, that the proceeding described above was unnecessarily painful and tedious. I may as well here briefly describe what I believe, from the experience of my last case, to be the best method of performing this operation. It being decided in which intercostal space the opening is to be made, an incision nearly two inches long should be made with a narrow straight bistoury along the upper border of the inferior

rib of that space down to the intercostal muscles ; the instrument should at once be cautiously pushed into the cavity, the consequences carefully observed ; and should nothing forbid, the incision should be prolonged to the extent of an inch and more.

“Should there be any hæmorrhage from any vessel external to the chest, it can readily be commanded by a ligature applied before the excavation is opened. Should there be any oozing from the cut wall of the cavern, the tube will, by its pressure, I believe, as far as my experience goes, command it. In the case of the lady on whom I have recently operated, there was some oozing, which was readily subdued by the tube and the application of cold.

“The reasons that induced me to adopt the form of incision described in the first case was, that had I made the incision in the direction of the fibres of the pectoralis major, I feared much annoyance might be produced by the action or spasm of that muscle. I therefore determined to paralyse that portion of the muscle implicated in the operation by the transverse division of its fibres. That this may be of service in stout muscular subjects I do not doubt, but the surgeon will rarely be called upon to perform this operation when the muscular system is in that condition. The simple proceeding adopted in the last case will,

in the majority of instances, be found quite sufficient, occupying as it does a few seconds only; it is, as far as the pain of an operation is concerned, not calculated to cause more suffering than the infliction of a wound necessary to evacuate the contents of a small abscess. After the incision is made, a piece of a full-sized elastic gum catheter is to be introduced along the wound into the cavern, and retained in its position by a piece of ligature tied round the end (which should project a quarter of an inch beyond the external wound), and the ligatures should be secured by strapping. An ivory cap, similar to the accompanying engraving,



should be applied on the mouth of the tube, with a piece of warm sponge placed in its interior; this serves a double object, warming the air that enters through the aperture, and absorbing any discharge issuing from the wound. This, of course, should be frequently changed, and the cap may be easily secured by a strip of oiled skin passing through the little bands at the side, the ends of which may be fastened

to the adjoining integument by a piece of plaster.

“The most important point to ascertain, if possible, before such an operation is determined on, is whether the pleuræ costalis and pulmonalis adhere; this, in almost all the cases to which this operation is applicable, will be found to be the case; Louis, on this point, going so far as to say, ‘if there were no adhesions, neither were there large or medium-sized excavations; generally speaking, indeed, there were none of any kind.’—(Walshe, Translation, p. 36.) All will agree, who have had any experience upon this subject, in the truth of this observation; at the same time, the surgeon cannot divest his mind on the possibility of his opening the pleura, and thus creating pneumothorax. It would undoubtedly, therefore, in relation to this operation, be most important for us to be able accurately to diagnose the presence of adhesions; and it has struck me that the presence of that expansion during inspiration, and corresponding depression during expiration, of the intercostal space over a tuberculous cavity, which is often seen, cannot take place without adhesion of the pleural surfaces. It requires further experience, of course, to determine this point, but I think the suggestion worthy of consideration. Although this operation is not of recent date, it

is revived under very different circumstances. The invaluable assistance to be derived from the stethoscope in affections of the lung was unknown to Dr. Barry; we cannot, therefore, be surprised at finding an operation calculated to give, to say the least of it, great relief, falling into disuse, when the surgeon had nothing to guide him to the seat of the disease but pain and increase of temperature."

Since the foregoing history was published by Mr. Storks and myself, in the "Medical Gazette," upwards of four months ago, I. G. has undergone many variations in his condition, which may be attributed chiefly to the severity and length of the late winter. At one period a severe attack of hæmoptysis considerably reduced his already weakened powers; he has, however, had no recurrence of that symptom for the last two months, and is slowly recovering his strength. His cough and expectoration have been subject to much variety, sometimes troublesome, and rather copious; then, again, both disappearing, to return after a shorter or longer period; such has been the progress of the case since the middle of December. The patient's appetite was equally capricious; the bowels have maintained a healthy character generally; the circulation has been altogether more hurried than it was during the first month after the operation, but has for some time been slower; the breath-

ing has never been difficult, or the respirations more frequent than twenty per minute; he has complained of a good deal of muscular pain wandering over the left side of the chest, the region in which the puncture was made; these have yielded to mustard poultices. His sleep, which has been very comfortable of late, was generally restless and deficient. The physical signs have undergone no particular change; percussion elicits a dull sound over the upper portion of the left lung, the sounds of inspiration and expiration have a dry, blowing, whistling character, and the vocal and tussive resonance are not of the ordinary cavernous nature, but referable to bronchophony.

The right lung has undergone no perceptible physical deterioration.

I still entertain the hope that he will recover, chiefly from his having passed through the winter without an extension of the disease, and from the belief that he must have sunk long ago had it not been for the relief the operation afforded.

He suffered much from pain, and spasms of the pectoral muscles, occasioned by the introduction of the tube into the orifice; this was overcome by smearing the tube with a little extract of belladonna; air continues to pass freely through the opening.

The following case was operated on shortly after the foregoing:—

CASE LV.

Mrs. ———, ætat. 25, of a consumptive family ; had suffered from confirmed phthisis upwards of two years. She had been under my care eighteen months ; at the commencement of this period a large cavity occupied the upper portion of the right lung, and miliary granulations the left. For twelve months great improvement took place, but at the end of that time she gradually lost ground, and became very much emaciated. The good effects of the operation on I. G., and the certainty that she could not live much longer, unless the disease was arrested, induced her to consent to its performance.

On Nov. 30th, 1844, in the presence of Sir Richard Dobson and several other medical men, an opening was made by Mr. Storks between the third and fourth ribs on the right side of the chest ; the operation did not occupy more than a few seconds, the patient experienced considerable relief in her breathing, but gradually declined, and died fourteen days afterwards. A *post-mortem* was instituted : the emaciation was excessive, œdema existed in the lower extremities ; two large irregular cavities were found occupying about two-thirds of the right lung (the summit of the left was also the seat of a small cavity) ;

below this, the lung was studded with tubercles ; its inferior portion was healthy ; the liver was in the state called fatty degeneration. Had the operation been performed six months earlier, in this case, I believe it would have been attended with a very different result. Besides the disease in the left lung, which had made rapid strides during the few months preceding the operation, the wasting of the body was excessive.

Since the publication of I. G.'s case a similar operation has been performed by Mr. Thomas, a surgeon in Wales. When the report was published, a month after the operation, the patient had undergone great improvement.

The great majority of phthisical cases are, I am persuaded, wholly unfit for this mode of treatment, as the disease generally develops itself in both lungs to such an extent, that when a cavity exists in one, if there be none in the other, a crop of miliary granulations, or hardened tubercles, are met with, which so impairs the function of respiration, as to form an insuperable barrier to the operation. But although this is generally true, so common is the disease, that cases are occasionally met with, where a cavity is formed in one lung, with very limited and recent disease in the other ; and in rarer cases, one lung is perfectly healthy. Louis has recorded several examples of the latter, which are the cases that should be selected for puncture. That individuals can live,

and perform all the ordinary duties of life, with only one lung, is a well-known fact, and exemplified sometimes in chronic pleurisy, where the effusion has been so great, on one or other side of the chest, that the lung becomes compressed, and is rendered wholly impervious to air, from which it never recovers; for even after the absorption of the fluid, it remains in its fixed position by means of adhesive bands of new membrane, the result of the pleurisy; consequently, the function of respiration is entirely performed by the other lung. It is also of high importance that the physical powers be not much reduced, that emaciation be slight, and that the case be free from complication, as, according to my experience, the patient always loses flesh for some time after the operation, and, consequently, the less he be emaciated, the better able is he to bear the wasting consequent on the operation. This may, however, have been incidental to my patients, from their not being very suitable for the operation; whilst in others, where the amount of disease in the lungs and bodily wasting are less, no loss of flesh would follow the puncture; indeed, such appears to have been the case in both of Sir Henry Marsh's patients. The facts already accumulated, relative to this operation, are sufficiently numerous to show that life has not only been prolonged by its performance, but that recoveries have actually taken place, which en-

titles it to a full and impartial consideration by the profession. It must be also borne in mind that the period when this valuable appendage to the treatment is admissable, the prospect of recovery through internal remedies is indeed very slight. I trust, by a careful selection of cases, in the course of a few years, that such an amount of success will have been realised as to enrol this part of the treatment amongst the most useful in the last stage of phthisis.

THE END.

LONDON :

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